

J.G. Rutherford, V.S.
in dec 20, 01

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.

VOL. XXXVI. WINNIPEG. APRIL 5, 1901. MANITOBA. No. 523

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CONTENTS OF THIS NUMBER.

	PAGE.
FLAX	207
SPELT	207
THE LAST CALL FOR SOUND SEED	207
FARM SIFTINGS	207
RANGE CATTLE SHOULD BE SOLD BY WEIGHT	207
CONDITIONS IN SOUTHERN ALBERTA	208
SMUT	208
RAISING CALVES SUCCESSFULLY ON SEPARATED MILK	208
POTATO GROWING	208
CHEESEMAKING	208
OUR SCOTCH LETTER	209
HIAWATHA (10067) (ILLUSTRATION)	209
LONDON SHIRE HORSE SHOW	209
THE IDEAL EXPORT STEER	210
GOVERNMENT HAIL INSURANCE	210
GOVERNMENT INSURANCE OPPOSED	210
WANTS 1,000 HORSES	210
ANNUAL MEETING OF THE WESTERN HORTICULTURAL SOCIETY	211
WEED SEEDS AS STOCK FOOD—SPELT	211
CARMAN POULTRY ASSOCIATION	211
SATISFIED	211
VEGETABLES SUITABLE FOR THE FARMER	211
SOIL FERTILITY AND LIVE STOCK	212
OBITUARY	212
SENSIBLE SUGGESTION TO GOVERNMENTS	212
A GRASS ROTATION NECESSARY	212
IMPROVE CHEESE AND BUTTER BY IMPROVING THE MILK	213
TEST THE DAIRY HERD	213
A WILD-FLOWER GARDEN	213
PRIMROSE PARK'S PRUDE 20475 (ILLUSTRATION)	213
FARMER'S ADVOCATE IS UP-TO-DATE	213
FEATHERS OR EGGS?	213
DETAILS OF BARN PLAN, ETC.	214
CONVENTION WEEK	214
THE WINNIPEG INDUSTRIAL PRIZE LIST	214
QU'APPELLE FAIR	214
DAIRY BREEDS FOR DAIRY WORK	214
THE FIRST NUMBER MORE THAN PAID THE BILL	215
RESIDENCE OF A. M. MUNRO, GLANWORTH, ONT. (ILLUSTRATED)	215
AIR SPACE IN BYRES	215
TO REMOVE WARTS AND LICK FROM CATTLE	215
HORSE TRAINING AND EDUCATING	215
DUTY OFF SEED WHEAT	215
PROPOSED NEW SCHOOL OF AGRICULTURE	216
AN EFFECTIVE HAWK TRAP	216
POULTRY-HOUSE FURNISHINGS (ILLUSTRATED)	216
FEEDING VALUE OF SPELT	216
BREEDING AND CARE OF GEESSE	216
RAISING CHICKS THE NATURAL WAY	216
LONDON HACKNEY SHOW	217
SHEEP BARN PLAN (ILLUSTRATED)	217
QUEENS	217
SEED SELECTING AND TESTING	217
SUGAR BEETS IN MICHIGAN	218
PROF. C. D. SMITH ON SUGAR BEET CULTIVATION IN MICHIGAN	219
QUESTIONS AND ANSWERS—VETERINARY: FITS, FOOT-ROT AND NASAL DISCHARGE; LUMP ON HEIFER'S ANKLE; STRYCHNINE POISONING; LUMP JAW IN CATTLE; PARTIAL OPACITY OF CORNEA IN MARE; RUPTURE IN MARE; ABORTION IN MARE; CONCUSSION OF THE BRAIN IN HORSE; LEUCORRHOEA IN MARE—WORTH ITS WEIGHT IN DOLLARS; SYMPTOMS OF PNEUMONIA IN HORSE—FOES; NON OCCURRENCE OF OESTRUM IN COW AND HEIFER	219, 220
MISCELLANEOUS: EXEMPTIONS FROM SEIZURE IN THE N.-W.T.; TAXATION OF UNPATENTED LAND AND STATUTE LABOR; FOR SMUT IN OATS; SALT FOR STOCK; REMEDY FOR RINGWORM ON CATTLE	220
CHICAGO MARKETS	220
UNITED STATES SUGAR BEET CROP	220
COMING FOR CANADIAN REMOVALS	220
BRITISH CATTLE MARKETS	220
HOME MAGAZINE.	
THE FAMILY CIRCLE	221
THE QUIET HOUR	222
THE VILLAGE POLITICIANS (ILLUSTRATION)	222
THE CHILDREN'S CORNER	223
MY DOLLIES (ILLUSTRATION)	223
GOSSIP	224, 225, 227, 228, 229, 231, 232, 233
NOTICES	231, 231
ADVERTISEMENTS	20 and 206, 221 to 236

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* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE. *

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Vol. XXXVI

WINNIPEG, MANITOBA, APRIL 5, 1901.

No. 523

Flax.

A few years ago flax-growing received considerable attention by many Manitoba farmers, but the results were not sufficiently satisfactory to encourage further efforts. To a number of causes may be attributed the unsatisfactory results, the chief of which were the difficulty of obtaining clean seed and the very low prices for flaxseed that prevailed that fall. Flax-growing in Dakota has steadily increased during late years, and it is certainly worthy of careful consideration by the farmers on this side of the line. A large oilcloth manufacturing company, recently established in Montreal, together with one or two oil mills in the same city, that together could utilize all the flaxseed grown in Canada, will not likely permit the two old companies in Manitoba and Ontario to hold down the price of flax, as they had done in the past, so that it could not be exported, and thus discourage its more general growth. The enormous demand for paints and oils, created by the general prosperity both in the United States and Canada, will tend to increase the demand for flaxseed, and, on the basis of the world's present supply, prices will range well over a dollar per bushel for high-grade flax this fall. Some authorities expect the price to be \$1.25. With decent cultivation, flax will yield from fifteen to twenty bushels per acre, and anyone can see whether it is not worth considering as a profitable crop.

Flax requires good cultivation and clean land, although it will do fairly well on early breaking. Best results would, of course, follow from back-setting, or a clean summer-fallow, but good yields may be had on fall or spring plowed land that is surface-cultivated frequently from early spring till seeding-time, to germinate and destroy all weed seeds that lie near the surface. Flax is a small, rather delicate plant at first, and can't live in a weed patch. It should be sown from May 15th to May 25th, but may ripen if sown as late as June 1st. It is generally conceded by the Dakota growers and by the Mennonites, who always grow it extensively, that a half bushel of seed per acre is better than thicker seeding, as when thin on the ground, the plants branch out more and will carry more seed bolls.

Much of the flax grown last year was, like other grains, damaged by weather, and consequently is of very inferior quality for seed purposes, and, unless with very choice samples, would require much thicker sowing than half bushel per acre to insure a stand. A quantity of flaxseed from the Argentine Republic has been imported by a Duluth firm, who have experimented with imported seed from Bombay, Calcutta, and the Argentine, as compared with North Dakota grown seed, and the results of these experiments show that the Argentine flax produced about five bushels per acre more, and of a brighter, larger sample, than Dakota seed. The Bombay and Calcutta seed did not give satisfactory results. The Argentine flax is a lightish red in color, and large and plump, and while the price in Manitoba is \$3 per bushel, against \$2 per bushel for home-grown, it is probably the cheapest seed.

Where flax is grown extensively, it is cut with the binder, without tying, and left lying on the ground in loose bundles till threshed, when it is gathered in basket racks, without a man building the load, to prevent as far as possible threshing out. Any good separator will thresh flax and make a good job of it. Argentine seed may now be had in this country at the price above mentioned.

Spelt.

Its value as a crop for Iowa will depend entirely on its ability to out-yield the common cereals. It is not superior in other respects. — Iowa Experiment Station, Bulletin No. 27.

The Last Call for Sound Seed.

Once again we would remind every one to be careful as to the seed used. The man who has not got caution enough or has not enough "get" in him to test his seed grain, does not deserve to be called a farmer. Don't rely on tests made in midwinter, for before seed time it's possible damp or damaged grain may heat and its germinating power be injured. Our attention has been called to seed oats that have been sold in large quantities. They are said to have come from the western part of the Territories, and appear to have been run through a "drier." Many of those who have tested these Western oats this year say that only a very small percentage of them will germinate. TEST THEM, and, in fact, *all your seed grain* NOW. Better buy seed over again, if need be, than sow stuff that won't grow. Some of the above-mentioned seed oats we have seen are very much mixed as to variety, and contain an interesting collection of weed seeds.

Farm Siftings.

Among the farmers, the scarcity of feed is frequently commented upon. Scarcity of bedding is so evident by the condition of the stock and stables, that a visitor to the Province would be forced to conclude that straw, at least, did not materialize last year. Such was not the case, as the annual bonfires of straw were burned last fall by numbers of our farmers. Such a proceeding is *inexcusable* in the light of recent events. It seems that no matter how severe the lessons of the past, some people never will learn. Even if hay was scarce, a little chop added to the straw that has been burned would have tided many a breeding and growing animal over the critical point between now and grass-time.

The question of creameries is being brought to the front again in some districts as the panacea for poor crops and hard times. One finds that in some districts where creameries were running, they were not at all satisfactory to the patrons, for several reasons. Assertions of dishonest dealings on the part of the maker or managers are often heard, and in a few cases parties that sent cream to some of the butter factories were cheated or rogued out of the bulk of a season's cream. In the light of such experiences, it behooves the creamery promoters to insist on honest dealing and the employment of good makers *only*. The local buttermaker and his employers might also advise and impress upon their patrons the importance of sowing some summer feed for cows so that the milk supply does not fall off in August and September.

The directors of the Manitou Agricultural Society are determined to have a good Clydesdale in the district, and in order to make a choice have offered a prize to be competed for, the winner to travel in the district, and to serve mares of the Society's members at a set price. A very good plan, which might be followed with advantage by others in the Province.

At a recent auction sale of young bulls of Short-horn blood, the anomaly was seen in the offering of two *grade* Angus bulls, and that by a man claiming credit for introducing new blood, forsooth! into the country. In the words of Holy Writ—"O Lord, how long?" The interests of any breed are damaged severely by the offering of inferior specimens; such a shortsighted policy always reacts on the seller as on the buyer.

The winter season gives one ideas on tree-planting that might not occur to anyone at planting time, viz., plant trees far enough from the buildings that drifts will not interfere with the work in winter time; put the clumps or shelter-belts at least 100 feet from the buildings. Don't plant trees in straight lines, put them out so that the walks and drives form gentle curves. Straight lines of trees do not rest or refresh the eye as do clumps and curved borders.

Many men could gain valuable knowledge regarding pig-feeding or handling sows in winter at the Sheep and Swine Breeders' conventions, and thus avoid heavy losses among the young pigs from rheumatism, thumps and kindred troubles.

Don't sell those fat cattle until finished; any animal sells the better for being in prime order.

INTER PRIMOS.

Range Cattle Should be Sold by Weight.

From time to time statements are published in the local press which make it appear that there is a very wide discrimination in the prices of range cattle on the north and south sides of the 49th parallel. Statements are made that individual cattle that have "drifted" across the boundary from Canadian territory, and that have found their way to Chicago markets through the Stock Growers' Associations, have realized their owners more money, when freight, duty and incidental expenses were paid, than if they had been sold at home. Relative to this matter, the Secretary of the Manitoba Pure-bred Cattle Breeders' Association hands us a letter from the Secretary of the Western Stock Growers' Association which is most explicit and introduces a matter of greatest importance to the ranchmen, viz., selling by weight. Surely the ranchmen, than whom there is no more intelligent class of men, will not be slow to insist upon a system which will be so greatly to their advantage. Below we publish Mr. Mathew's letter:

DEAR SIR,—I am in receipt of your letter of the 9th inst. I am aware of the statements to which you refer, but they do not, in my opinion, represent the average conditions. I have knowledge of individual instances where the Canadian owner has received a higher price for his steer sold in Chicago than he would have from a home buyer, but in nearly every instance there has been a good reason for it: either the animal had missed the customs duty (as sometimes happens) or else it was an old range steer that had been missed in the gathering, and had consequently grown proportionately weighty. It must be borne in mind that the prevailing conditions in the two countries are quite dissimilar. Here we sell by the head, irrespective of size or quality. In the States they are bought by weight. That, I think, explains why in individual instances animals *may* net their Canadian owners a bigger price than if sold at home. I venture to assert, however, that the average Canadian animal sold in Chicago will rarely net its owner the market price at present obtained in this country. I will give you a few instances: The proceeds of eight animals from this country, sold through the Montana Stock Association, about a year ago in Chicago, netted as follows:

1 steer, \$42.50; 1 steer, \$38; 1 steer, \$30.50; 1 cow, \$16.00; 1 steer, \$30.80; 2 steers, \$55.50; 1 steer, \$34.00. These figures, you will perceive, do not in any instance reach the prevailing values in this country; but, on the contrary, with perhaps the exception of the first one, are far below. This is, of course, to be accounted for by the customs duty and commission, freight, feed, round-up and yardage charges. If it were possible to avoid these, or at least the customs duty, the price netted would certainly be far in excess of that prevailing here. The chief reason of this discrimination is undoubtedly, in my opinion, the system of buying, but it should be borne in mind that under existing conditions it is not one that effects the producer to any great extent. When the system of buying that prevails in the States obtains in this country, then I believe that prices for *good* cattle will considerably increase, but, on the other hand, those for rough, undersized and inferior grades will correspondingly decrease. As it is now, any animal fit for beef fetches the same price, no matter whether it is a well ribbed-up, table-backed Short-horn with all the characteristics of his race strongly in evidence, or a long-legged, slab-sided, inbred Dogie; the only difference would appear to be in their ultimate destinations, the former going to the export trade to Great Britain, while the latter supplies the mining centers of B. C.

I believe, however, that the buying system is on the verge of a change. Last year quite a number of range cattle were sold by weight, and the results were so satisfactory that it is certain to lead to a more extended trial this year. It will then, I believe, be simply a question of time for it to become universal, and prices will in due course, to a great extent, regulate themselves. If I can be of further use to you, I shall be very happy to do so.

(Sgd.) R. G. MATHEW, Secretary.

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Conditions in Southern Alberta.

To the Editor FARMER'S ADVOCATE:

Perhaps a brief account of our Institute trip through Southern Alberta during the latter part of February may be of interest to some of your readers. We started at Lethbridge, driving with wheels through to Pincher Creek, then on through the Mormon settlements, a considerable portion of the drive being in the vicinity of the Irrigation Company's canal. The prairies were clear of snow, and the last two days the rivers were clear of ice and the weather springlike. I had no idea there were such immense tracts of fine arable land in Southern Alberta. Those of us living further east in the Territories could take many valuable lessons from the settlers in that district, where they only settled last spring and already have thousands of acres fenced with the best cedar posts and wire. Nearly all of them have some small-fruit bushes and trees planted out, and have made preparation to plant largely this spring. It seems to me that throughout Southern Alberta conditions will change very rapidly; the day of the large rancher is over, as the whole country is being divided up into small farms and settlers are going in fast. All the watering places are being fenced in, and it cannot be long before the greater part of the winter feed will have to be grown. Of course, this will entail suffering upon some individuals, but the prosperity of the country will be vastly increased. Feed of all kinds can be grown with good success. I saw timothy hay of the finest quality; one large stack that was the seventh cut off a field that had never failed to give a good crop in that time. Bromegrass also does well. Nearly every farmer has a patch of fall wheat, which, they say, never fails. Red Fife grows very well, but I think can never be successfully grown there, as after being grown a few years it becomes light in color. With a fine climate and almost unlimited market in the mining districts of British Columbia for all kinds of farm products, Alberta certainly has a wonderful future before it.

Indian Head.

GEO. LANG, SR.

Smut.

Don't neglect to treat all seed grain to prevent smut. Full particulars regarding treatment were published on page 149, March 5th issue. We may have to take our chances against frost, drought and other disasters, but the man who suffers loss from smut has only himself to blame. Don't conclude that because you had no smut last year, or because you have treated your seed for the past year or two, that you won't have any this year. Don't be lazy. Treat your seed with borax or formalin.

Raising Calves Successfully on Separated Milk.

Many people object to using a cream separator, on the ground, as they claim, that separated milk is of no use to raise calves; and, in any argument thereon, these people are so confident that it seems almost a waste of time to try and show them any different. "How can bewitched water be of service in calf-raising?" said one man, when speaking of this milk. Or, says another, "Whey is just as good." Still another says, "The milk becomes so confused by the whirling in the separator, etc., etc." Most, if not all, of these people use such argument in entire ignorance, and without any experience. Their father or grandfather had no separator, and, as a separator is generally sold warranted to take all but a very small fraction of the butter-fat out of the milk, therefore the milk must be useless to feed animals, except to give as a drink, as you would give water. A prominent farmer from Southern Manitoba, walking over my farm with me in the summer of 1889, remarked: "Those are good calves, surely you don't feed them on separator milk?" "Yes I do, and refused \$17 a head for them when eleven months old." "Well, if separator milk can make such fine calves, I shall have to reconsider my previous conclusions, and leave my mind open for new impressions." And this is just what too many people don't do. They are so satisfied, and their mind is so full with what they know already, that there is no room for more. Whereas, a progressive man must be always reading up, and casting out obsolete methods to make room for more modern ideas. "Perhaps there may be other ways of sucking eggs than those our forefathers practiced." Anyway, do not be bigoted. Enquire into the thing and see for yourself.

I contrive to have all my calves come in March or April. The latter month preferable, as I wish to raise them as economically as possible, and to have my cows as fresh in milk as possible when the grass comes. They are fed the mother's milk alone for some days, as the constitution of the dam and calf are so much alike, and this seems the only rational way of commanding the most success. I notice that if the calf gets successfully over the first week it is about half raised. Some are difficult to teach to drink, and cause a lot of trouble. Occasionally I meet with one that all the patience and experience I possess seems of no effect, and drink it will not. Such a one I put to suck a hard milker or a nervous kicker (there are always some such in a herd), and by this means I often raise two calves on one cow. After a few days drinking mother's milk, I mix half of other milk with half mother's milk, and so bring about a gradual change. The quantity may vary according to circumstances, but three times daily is preferable for youngsters. When about three weeks old, I mix half new milk and half separator milk for about ten days. The calves then will be in a pen or stable, running loose. I place a rack convenient with a quantity of sweet hay about twice daily, and a trough into which, after feeding milk, I sprinkle about a cupful of chop or oats. They soon learn to look for this, and after drinking milk will turn immediately to the trough, and whilst eating the grain they seem to forget the practice of sucking ears, etc., which seems to inevitably follow raising calves by hand. I cease feeding grain when pasture gets good, and I think it best to give grain dry, as they lick it up and thoroughly mix it with the saliva, and rarely do I have a sick calf, not losing any more than two or three per cent. from all causes. Each calf gets its milk in a pail, and I have no use for those who feed all in one trough, thus letting the strongest or quickest-drinkers get the greatest share. The foam should be taken off the milk when feeding it to calves, as it may cause some of them to scour. Do not expect each cow to feed her calf and a number of pigs as well; this is unreasonable; and do not expect that "Barnardo boy," or any other boy, to do it as thoroughly as you ought to do it yourself. If your mind is not given to cattle-raising, you will not be nearly so persevering under any difficulty that may crop up. When the fall comes the calves should be fed some few oat sheaves or good hay at night, and when milk runs out, a little grain once daily will be a decided advantage, and will return as good a profit fed to calves the first winter as any other use you may put it to. The reasonably-careful man, who understands his cattle, may expect to make about \$20 a head from his cows in a suitable creamery during the grass months, and some more in spring or fall, according to feed and management. This, together with 17 or 18 dollars for each yearling, is the safest and surest income I can see on a farm. I am speaking only from a summer-creamery point of view. Feed on these lines costs very little, and I safely count on about \$35 per annum from each cow milked. Others may advocate winter dairying, and for a limited number this may be suitable. But the great majority of us must look to the export market and prices, and I think it best to take advantage of the summer pasture so easy to get, and use up our straw, hay and other coarse feed on the farm during winter. Up to the present, winter dairying is not practicable to any great extent. There may come a time when it will be more so. The profits of calf and butter raising on the lines mentioned are worthy of the notice of many who complain of hard times, and what is looked upon by some as only an adjunct, in a small way, to the income of the farm may turn out to be the principal factor in acquiring a competence and comparative luxury.

Northwestern Manitoba.

F. SIMPSON.

Potato Growing.

To the Editor FARMER'S ADVOCATE:

One vegetable that is much neglected by the farmer is the potato. The majority of farmers consider the potato patch a necessary evil, although there is nothing on the farm that will pay better than the potato. In eight years' farming, potatoes only once got as low as 25 cents per bushel, and one year were as high as 85 cents per bushel. I have never known potatoes but once lower than 35 cents, and oftener 45 cents and 50 cents per bushel. Every farmer ought to grow at least one acre of potatoes. But I hear a number of farmers say, "That is almost impossible with all the work I have to do; if I got in an eighth of an acre, that is all I can attend to." The way most farmers plant and care for potatoes does not pay. A piece of stubble is selected; a few loads of manure—the handiest got—is spread over the field so thin that it can hardly be seen; and when the time comes for planting, the plow is used, and guessed to plow about two inches deep, planting being done in every third furrow; then left until the potatoes show above the ground sufficiently large to hill. The plow is used again; weeds and all are turned up. A man goes along the rows and digs out the vines that have been covered up, and covers up any weeds that may have been standing. In the fall there is an unsightly field of weeds and a few potatoes; consequently, the farmer grumbles and says, "It doesn't pay to grow potatoes."

I submit my plan, and if it is carried out, I am sure every farmer that does so will say that potatoes are the best-paying crop on the farm. In the winter I draw manure from the stable, put it on the ground intended for potatoes, spread it as thick as possible, at least four inches thick, as evenly as it can be spread. If there is much straw, I touch a match to it in the spring and burn the coarsest, then plow the manure under; use the harrows freely, and sow with oats, and use the oats for green feed during summer. As soon as the oats are off, I plow just as deep as I can, and harrow. In spring, just as soon as the frost is out, I plow again, putting the plow in to the beam. I take off the coulters and wheel. Then the harrows are used about twice a week until planting-time, never allowing a weed to live, and by the fifteenth or twentieth of May the land is in first-class shape. Now the plow is got out, a stake is set at each end of the plot, and every three feet a furrow is made. I use a steady horse to mark out as many furrows as can be planted before the ground becomes dry; plant the potatoes about six or eight inches apart in furrow. I make furrows about four inches deep. A light harrow is then used until the potatoes are well covered. When the potato ground is all planted, another harrowing is given. At the end of a week harrow again, and repeat as often as weeds appear, till every weed is destroyed. After a rain, before the ground becomes baked, the harrows are used. This is kept up till the vines are up at least three inches. The reason for planting so thick will now be seen; the harrows will pull out an odd one, but there will be plenty left. As soon as potatoes are high enough, the plow is used, and a little dirt is thrown up each side of the vine. The dirt is carefully drawn around the stock, then a second time the plow is used, a week or so after, and a little more dirt is placed around the potato plant. A few weeks after it may be necessary to go over the patch and pull up any stray weeds, but there will not be many. This may seem like a lot of trouble. It requires, however, but a very short time, and a few minutes is all that is required to go over an acre with the harrows. The results, when you come to dig the potatoes, will well repay for all the trouble, and when farmers will come for miles to you in the spring and offer you 45 cents or 50 cents a bushel for them, you will find that they will yield you at least pocket money for awhile. From 300 to 500 bushels can be raised off an acre by this method. The following spring I give a coating of well-rotted manure, and work the same as I did before. Sometimes I take third crop off the same patch, but find it pays just as well to sow the ground the third year with turnips or mangels. I use the plow to dig the potatoes, and then harrow freely till there are but very few potatoes left in the ground.

Eastern Assiniboia.

J. B. POWELL.

Cheesemaking.

We have recently received a copy of Decker's Cheesemaking from the publisher, Columbus, Ohio. The work, which is up-to-date, takes up the manufacture of Cheddar, Swiss, Brick, Limburger, Edam and Cottage cheese. Prof. Decker has a reputation as a cheesemaker, which will not be belied by the principles laid down in this work. At the Wisconsin Dairy School, where he was instructor in cheesemaking, it is proverbial that no matter how poor to work with the material supplied was, Decker would always make good cheese. To the young person just starting into cheesemaking, the person with some experience, or the veteran curd manipulator, we can unhesitatingly recommend this work, which is now the standard text in nearly all the up-to-date dairy schools of the continent. Prof. John W. Decker is Professor of Dairying at the Ohio State University. Copies of the work, which is well illustrated, will be mailed postpaid from this office for \$1.75.

Our Scottish Letter.

The principal events here recently have been the spring bull sales and draft horse shows in Scotland and England. The leading event in Scotland was the show of Clydesdale stallions at Glasgow on the 6th of February, as reported in our last letter, appearing in the issue of March 5th. On account of about seventy of the best of the Clydesdale stallions having been engaged between the date of the Highland Society Show at Stirling, in July, and the Glasgow Spring Show, there were not nearly so many horses on exhibition as was the case in the old days. The best thing that can be said in favor of the new system, is that it obviates the necessity of feeding up so many horses as used to be the case, and breeders thus get the travelling stallions in hard condition and fit for their work. It is, however, rather hard on the Glasgow Agricultural Society, which has for so long and so successfully conducted this show, that it should be so curtailed, the reduced entries meaning, of course, a big reduction in revenue to the Society. The show, up to about the year 1800, was more a horse-hiring fair than a show, and it had continued so for about twenty years. Originally started to allow the Glasgow Agricultural Society to make a good selection of a district premium horse, it blossomed into a general hiring fair about 1870, when an arrangement was come to whereby all the smaller shows throughout the country were stopped, and every one sent a deputation to Glasgow. The only reservation made by the Glasgow Society was that it should have the first "pick," and any horse hired by another society, before the judging, was hired with that reservation in favor of Glasgow. The advent of the Studbook, which put everyone in possession of a directory to Clydesdale stallions, gradually altered all this, and the great demand for horses during the eighties made remote districts as keen as Glasgow to have the best. Deputations from these districts then began to be sent all round, and the competition developed so rapidly that now there is as much hiring done at the Highland Society in July as used to be done at the Glasgow Stallion Show in February.

In spite of these many absentees, we had a very good show on 6th Feb. Mr. Pollock's great horse, Hiawatha 10067, again proved invincible, winning the Cawdor Cup for the third time—a very notable event, and all the more remarkable as amongst his competitors on this occasion were his own sons, Marcellus 11110 and Labori 10791, the former first in the three-year-old open class, and the latter second to him, as well as winner of the Glasgow district premium. Both are gay horses like their sire, but Marcellus has many points which suggest that he may finish a better horse than either. He is a wonderfully well-balanced horse, and has more width and thickness than the old horse had at the age. Hiawatha has arrived at maturity very slowly, and his quality is clearly seen on this account. The formation of his hind legs has been characterized as a masterpiece, and the language is not too strong; it is perhaps the best formation of hind limbs seen in any horse for many a day. He has an extraordinary crest and very grand shoulder, but there are horses which stand better on their fore legs, and his action is nothing out of the common. Another very nice, level Clydesdale horse is Casabianca 10523, winner of the Glasgow district senior premium, and second to Hiawatha in his class. This is a very true short-legged Clydesdale, got by the celebrated Baron's Pride 9122, and winner of first prize and championship in 1890, when first exhibited. As a level, well-balanced Clydesdale stallion, Casabianca is not easily beaten. Mr. James Kilpatrick was first in the two-year-old class with the fine colt, Lord Dundonald 11084, which gained first at all the leading shows last year but one. He is a thick, well-coupled horse, and was got by a good big horse named Royal Carrick, in some respects not unlike Hiawatha. He was the Glasgow senior premium horse in 1900; another son of Hiawatha, named Mercutio, being the junior.

THE ANGUS BULL SALES.

The sales of young bulls this spring were lively events. The leading prices have been made by herds which have long occupied premier places in the respective breeds. His Majesty the King is going to carry on the Aberdeen-Angus herd owned by the Queen at Aberfeldie Mains, Ballater, and his commissioner, Mr. Forbes, at Perth, gave the highest price, 220 gs., for a bull of the breed this season. He is named Elandslaagte, and was bred by Sir George Macpherson Grant, Bart., in his famous Ballindalloch herd. He is a strongly inbred Erica, and if the sale demonstrated anything, it was the supremacy of this tribe over all others in the black polled breed. Sir George got an average of £118 1s. for seven young bulls on this occasion; Mr. McLaren, Auchnaguite, Ballinbrig, a breeder practically unknown until last year, got an average of £82 19s. for five; Lord Strathmore got £62 17s. 8d. for nine; and Mr. Wm. Whyte, Spott, £42 12s. 7d. for ten. These

were the best averages amongst the Aberdeen-Angus breeders, and the reader will agree that they ought to please the most exacting. Many high prices were got for individual bulls, such as 170 gs. secured by Mr. Whyte for his first-prize winner, Gipsy Major; 155 gs. secured by Mr. McLaren for Meramere, which was placed third; 140 gs. to Ballindalloch for Earl Elfin; 150 gs. to the Earl of Strathmore for Mondamon, also placed third in another class; 140 gs. by Mr. McLaren for Ellamere; and several went at 100 gs. or thereabouts. An interesting feature of this sale was the fact that the 220-gs. bull which went to the King was not placed by the judges, the price being given as much for blood as for individual merit. Of course, judges cannot consider blood when placing animals in a showing. All the animals referred to were calved after 1st December, 1890, so that only a limited number of them were over one year old.

THE SHORTHORN BULL SALES

The highest price at these sales has been paid by Mr. Wm. Duthie, Collynie, Tarves, the world-renowned breeder of Shorthorns, for the young bull, Alastair, bred by Lord Lovat, at Beaufort Castle, Beaulieu. His price was 400 gs., or £420, the best price ever made in Scotland at a spring bull sale. The youngster was bought at the Inverness sale. He is a very fashionable Shorthorn, full of Scotch blood, and got by a sire named Royal Star, whose stock promise very well indeed. Another of them was first at Perth this week, and made a fair price, well up to the £100, but he is not nearly as good a bull as Mr. Duthie's purchase. The Lovat herd is a robust, healthy combination, reared on high land, and not greatly pampered. The animals bred in it have long enjoyed a first-class reputation, and two of the young bulls from the herd at Perth sold for 100 gs. Although the Shorthorns have thus made the high-

London Shire Horse Show.

The 22nd annual show took place February 26th and three following days, at the Royal Agricultural Hall, Islington, London. The aggregate entry was 667, 335 being stallions, 301 mares, and 31 geldings. The show was the largest ever held by the Society, and the general average of merit and quality was never so high, nor do we remember in any previous year so very few disqualifications for unsoundness being made; in fact, in no portion of its most valuable work has this Society been more successful than in the eradication of unsoundness.

At this show the three judges all acted together in the first selection, when each class is paraded entire, from which there can be selected not more than twenty-five, these being sent out to be examined by the veterinary surgeons, and those passed as sound by them are again placed before the judges to award the prizes, two judges acting, the third man being referee, if necessary.

In the class for stallions foaled in 1900, there were no less than forty-six entries, a typical lot of well-bred youngsters, the choice for premier place being a grand colt owned by Mr. A. Henderson, M. P., who, a year ago, won in the corresponding class a similar honor, and sold the colt to Sir J. B. Maple, Bart., at last year's show, for \$7,500. Next to him came one of rare quality, exhibited by Capt. W. H. O. Duncombe.

There were eighty-six entries in the class for two-year-old stallions, and a truly grand lot they were. Every one of the twenty-five selected for veterinary inspection were returned to compete for the nine money prizes and five breeders' prizes. Messrs. J. & M. Walwyn here took the first place with Bearwardcote Blaze, a grand young colt, hardly masculine enough in appearance, and probably a wee bit wanting in substance, but, for all that, a grand young horse, with particularly fine quality of bone and hair. To this colt went also the champion cup for best young stallion under four years, the champion cup for best stallion in the yard, and the Society's gold challenge cup with its gold medal. His nearest competitor in the class was W. G. Wainwright's Royal Bendigo, a colt with a promising future.

Eighty-eight entries were made in the class for three-year-old stallions, and again all the twenty-five selected ones came back. Desford Combination took with ease the premier place in what was probably the strongest class in the show, and that his owners, Messrs. Thompson, did not secure with him the champion cup in the young stallion classes is a matter of regret, for his high merit, fine masculine type and character, together with great weight and substance, ought, in the opinion of many, to have carried him to the top. Lord Llangattow, with Hendre Champion, came in for second honors. Eight others were also awarded cash prizes, and five additional breeders' prizes went to the breeders of the first five winners.

Thirty-five four-year-old stallions were entered, a first-class lot, no less than eighteen being noticed by the judges, seven of which took cash prizes, the leading one being Moor's Regent, by that noted horse, Regent II., a wide, deep-bodied horse, on excellent feet and legs, from Mr. E. Green's stud; Messrs. J. Forshaw & Sons being second in this class with Black Topsman, a very handsome stallion, whose dash and go made him a favorite with many.

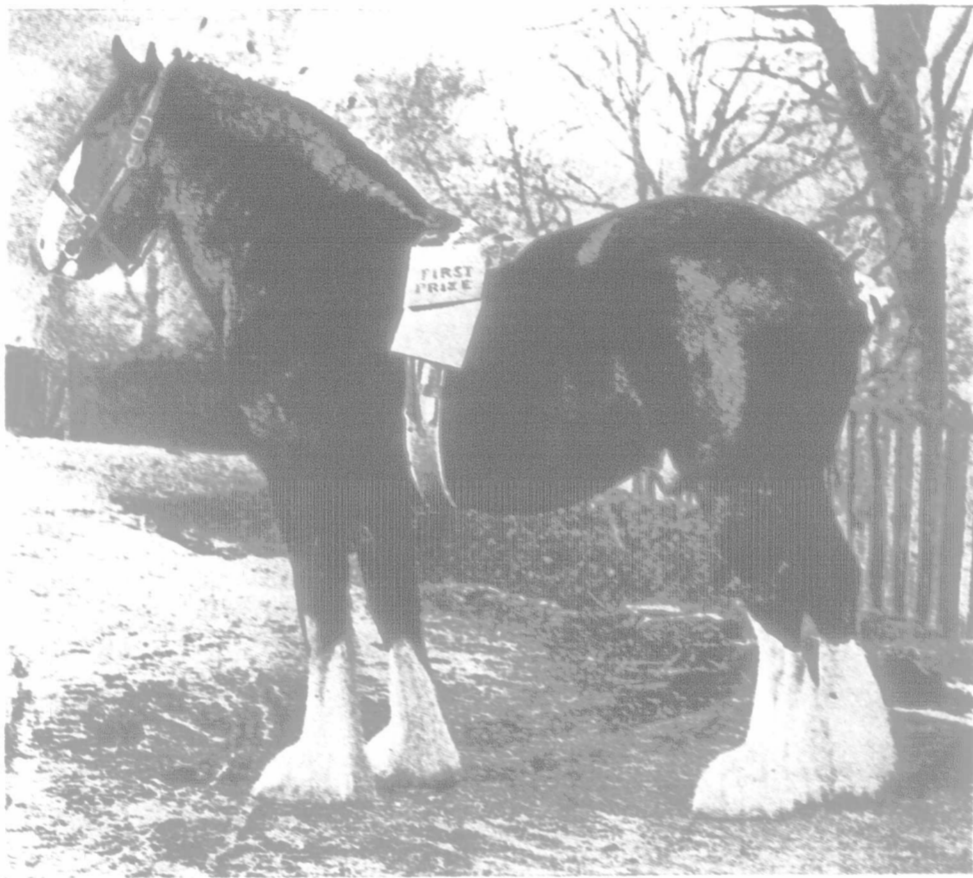
Stallions under 16.2 hands, between five and ten years old, came out to the number of twenty-four, and in this and the two succeeding classes it was a real pleasure to see how fresh and sound so many matured stallions were whose service in the stud had been so large and successful. Capstone Harold, a typical son of that very noted horse, Harold 3703, took first place in this strong class, and did great credit to his owners, Messrs. J. Forshaw & Sons. Seven others were decorated with award cards of different value.

Stallions over 16.2 hands high, and with the same limitation as to age as in the preceding class, numbered thirty-six, fourteen of which secured notice from the judges, seven with money awards, the premier winner of which was Messrs. Forshaw & Sons' Stroxtan Tom, who, besides being first in his class, secured the champion cup for the older stallions and ran the winner of the challenge cup and gold medal a very tight race for the blue ribbon of the meeting, but he had to be content with the r. n. for this honor, his nearest competitor being Mr. J. Rowell's Bury Premier Duke, who won the second-class prize, being made r. n. for the champion cup.

Twelve out of the twenty entries in what we call the veteran class, namely, stallions over ten years, were duly noticed by the judges, four with money awards and six with barren honors, the president of the year, Lord Middleton, taking the first place with Menestrel.

SALE REPORT.

The Shire Horse Society's Show was concluded, as usual, by the sale of a large number of those entered in the exhibition classes, a summary of



HIAWATHA (10067).
Champion Clydesdale stallion, Glasgow Show, 1901. Bay. Rising nine years old. Height, 17.1 hands. Weight, 2,128 pounds.

est price at the season's sales, the best averages have been made by the Aberdeen-Angus herds. Shorthorns are not nearly so numerous as the others, and the autumn sales at Collynie, Uppermill, Newton, and other famous centers in the north, rather discount the offering of bulls of this breed in spring. However, this is not a serious drawback, and the demand from Ireland has this season been a great boon and help to the sales.

Perth, Aberdeen and Inverness are the great centers for these northern breeds. Oban is the headquarters of the Highland breed, and a capital sale of bulls was held there last month. Of course, the hardy sons of the mountains take longer time to mature than the more modern breeds, and their numbers are not nearly so large. The Highland bulls are brought out very much better than used to be the case, and are distributed from one center. The highest price realized at Oban was £75, paid for a two-year-old bull named Schichallion, from the Marquis of Breadalban's fold at Taymouth Castle. He was purchased by Mr. Arch'd Turner, Kelchamaig, Kintyre, one of the oldest and best-known breeders, and his match for size and fleshiness is not easily found in the breed. Hair, horn and face are important points in the Highlander. His hair is a great protection to him in the inclement regions where his lot is cast, and he has some difficulty in keeping himself thriving amidst surroundings not too congenial. The Galloway pedigree bull sale holds at Castle Douglas, and the Ayrshire pedigree bull sale at Ayr and Lanark. But these events are not due for about a month. "SCOTLAND YET."

Parties requiring breeding stock in the line of horses, cattle, sheep, swine, or poultry, will do well to look carefully through the advertising columns in this issue, and to write for what they want.

which is given below. The aggregate total of the sale, £19,022, as well as the average of those sold, establishes a record. Throughout both sale days the interest never flagged, and the biddings were as keen at the end as at the commencement, but the females were throughout more sought after than the males. Fourteen stallions over four years averaged £95 17s. Ten four-year-old stallions, £133 4s. 10d.; highest price, £315. Twenty-three three-year-old stallions averaged £88 14s.; highest, £262. Thirty brood mares, £109 15s.; highest, £630.

The champion stallion of the year, Mr. Walwyn's two-year-old stallion, has been sold to the Earl of Ellesmere privately, and it has been reported that the price paid was \$10,000.

The Ideal Export Steer.

BY D. K. SMITH.

The export trade in beef cattle is rapidly becoming an important factor in the wealth of this country, and bids fair to rival many of the other great industries of North America. Whilst there has been a greater production of beef cattle in many parts of the world during the past decade, there has also been better markets, and the prices, as a rule, have been good. The quality of beef from North America has been quite satisfactory wherever it has had a fair trial, and an open door for beef and beef products is found in all parts of the civilized world. Last year there were exported from Chicago alone 934,649 head of cattle, and these found ready sale across the waters. In fact, it may safely be said that North America has become the breeding, rearing and feeding grounds of cattle for the world's largest and best markets. The beef industry has enriched its thousands, and many of the most prosperous and wealthy districts in Canada and the United States can point with pride to this industry as the source of their wealth and happiness.

Therefore, it is most befitting that we should carefully consider what is the best and most profitable steer to raise for the home as well as the foreign markets. The Britisher requires a steer of excellent quality; in fact, nothing is too good for him, and his cousin on the other side of the great waters ranks in the same class. They want an animal thoroughly fattened: not too fat, but fed for a long time, so that the flesh and fat are firm. They lay great stress on the quality of the beef, and are willing to pay a high price if they can rely on its superiority. It will be my first endeavor to give in concise form an outline of what I consider the Englishman wants in an ideal steer. The steer should be of superior quality, and from two to two and a half years old. At this age the carcass has a brightness and whiteness not found in older animals. I may also say right here that steers at this age are the most profitable for the producer as well. Many choice steers are exported as yearlings, and they have been found to be most satisfactory. As a rule, the weight ranges from 1,200 to 1,500 pounds, but most run from 1,300 to 1,400 pounds. The ideal steer should possess a short and lean head, broad between the eyes, with a medium-sized, quiet eye. The head should be small and gracefully formed. The neck should be short, and not by any means thick or coarse. The shoulders should be fairly broad across the top, and the part just back of the shoulders should be well fleshed. The loin and ribs are the expensive parts, and should be deep-fleshed and broad. The flesh on these should be firm and deep. This depth of flesh is opposed to the shelly carcass so frequently seen in a steer of inferior quality or not well fattened. The hind quarters should be broad, square, and well let down to the hocks, and also good in the twist, and the hocks should not be too prominent. The bone should be medium fine and the legs short. There has been a tendency to breed too close and produce a steer with too fine a bone. This is done at the expense of the constitution, and so an animal is produced that has not the strength of constitution to fatten well. It seems to me that many of our farmers and breeders are making a serious mistake in using males that do not possess sufficient quality and vigor. It does not seem to count for much that the male should have long legs, or a coarse head, or be too flat on the sides, or have large coarse hip bones, but when the steers from these come to market, the price obtained is a sure indication that something is wrong. It then dawns upon the owner that his bull had not the standard of quality requisite for a good breeder.

Buyers and butchers have different ways of telling when an animal is ripe and ready for the market, and I wish to remark on a few of the commonest ways. The butcher, as a rule, relies on the flank, and whilst it is a good indication, yet it is by no means infallible. Many buyers lay great stress on the purse as the most reliable test, and no doubt it has its merits. Others, again, require a thick, firm rib, well covered, and are satisfied if the animal possesses them. That the hips should be well covered is also a good indication. An animal that is ripe shows a thickness in front of the shoulders on the neck. As this is about the last place a steer stores away fat, it indicates that he is fat, and that he has been fed a long time. Then, in addition to these, there is the general appearance. These all are good, and are of great value in determining whether a steer is ripe for the market.

Government Hail Insurance.

To the Editor FARMER'S ADVOCATE:

As the question of a system of governmental hail insurance will be under discussion at the present session of the Local Legislature, I beg to say a few words upon the all-important subject. It is generally admitted that some effective system of protection against losses by hail should be adopted, inasmuch as the present hail insurance companies have not been as satisfactory as desired. The terrible losses by hail of the past season prove that the damage to growing crops from this cause is about ten times as great as the losses occasioned through fires.

In passing, let me say that while the mutual assessment system works satisfactorily with the fire insurance companies, it is altogether different when applied to hail insurance. In the former, protection is required the whole year round, and for this reason the insured must pay his assessment promptly, or be suspended from all benefits. In the latter, the danger season extends from about 15th June till last of August, after which time the insured runs no further risk till June in the following year, and hence there is no incentive to pay his premium if he is selfish and careless of his obligations to his fellow-farmers. As to a government hail insurance:

- First.—It will be necessary to create a fund sufficient to pay all severe losses in full. Not having statistics at hand, we cannot say what this should be—probably \$300,000 yearly.
- Second.—The rate should be applied on the basis of the equalized assessment of the Province, so as to obtain the lowest possible rate of taxation, the same to be payable with the municipal taxes.
- Third.—The indemnity should not exceed \$4 per acre for wheat and \$3 for other grains, and should cover every acre under cultivation. No partial loss of less than 50 per cent to be adjusted.
- Fourth.—Adjustment of losses to be made by two qualified persons under statutory declaration, subject to confirmation by a government inspector, or it might be wise to have all adjustment of losses approved by municipal councils before becoming a liability upon the hail insurance fund.
- Fifth.—During the month of June each grower of grain should file with municipal clerk a statutory declaration as to his acreage under crop.
- Sixth.—The operation should be controlled by the department of the municipal commissioner, under the management of a practical man with experience, as a business matter freed from all appearance of politics. The machinery of the municipalities to be employed in levying the rates, as directed by municipal committee, and collecting and forwarding same, all losses to be paid direct from the municipal commissioner's office.

SOME OBJECTIONS THAT MUST BE CONSIDERED.

- First.—The amount named, \$300,000, is a grope in the dark, as losses vary from year to year. As adjustments can under no circumstances be completed and total amount of losses in any year arrived at before the end of September, hence the municipal commissioner could not name an exact rate to levy and notify clerks of municipalities until after their tax notices for the year had been made out.
- Second.—The rate being applied on all, it will be very low, but the merchant in a town or city who is rated at \$20,000 for taxation purposes will pay ten times the amount the owner of a quarter-section will, who gets all the direct benefit. To draw the line at the land under cultivation (about 2,000,000 acres) in the Province, the rate would be very much increased, and all districts not subject to hail would kick fiercely, they being compelled to insure *willy nilly*. Ranchers, under any circumstances, will be opposed to the Government compelling them to protect the grower of grain while they may lose animals without any compensation from any quarter.
- Third.—The indemnity should either be low, so as to allow existing companies to do business, and thus to supplement the protection afforded by the Government, or it should be high enough to compensate a man sufficiently to save him from financial disaster. If only total losses are to be allowed, it will benefit a very few, as only a small percentage of losses adjusted in 1900 represent complete destruction of crop—perhaps about one in eight.
- Fourth.—Under the question of adjusting losses will arise all the difficulties possible to conceive, and which will be made the basis of many accusations against the Government of the day of helping their political friends. Farmers are the hardest class of people to do business with, and any dissatisfaction will be the cause of abusing the Government in power, and political agitators will arise in clouds to embarrass their political enemy.

It seems almost impossible to outline a scheme of government hail insurance that would be workable, and it is more than likely that any Government, for political reasons, will not adopt a scheme, and will say, why should we embarrass ourselves to provide protection against hail, and if so, why not protect against fire, accidents, sickness, and death? If the companies in operation were assisted by the Government in providing such legislation that they could compel farmers to pay their assessments in

every case, the difficulty would be nearer solution than the doubtful experiment of a governmental system of hail insurance. Governmental paternalism for farmers is not required. N. Y. Z.

Government Insurance Opposed.

To the Editor FARMER'S ADVOCATE:

I observe that there is a movement being made to ask the Government to bring a bill to provide insurance for those suffering loss by hail. Several years ago I wrote to all the Reeves of the Province, and to all the mayors of the towns and cities, asking their opinion of governmental hail insurance—a system whereby all the property of the Province should be taxed to pay the losses of those that had their crops destroyed by hail. I had replies from a large number, but I must say that very few were in favor of such a system. Some said that if it could be made voluntary, they would approve of it, but that they would oppose any system of compulsory hail insurance. The mayor of the City of Winnipeg said that he could not see why hail insurance could not be run on the same lines as fire and life. Some in the northern part of the Province said that they grew very little wheat. What grain was grown was for feed for stock, and therefore they would resist any system of taxation to pay for the losses of those that grow wheat. Who are the parties that are clamoring for government hail insurance? They are principally men who want hail insurance for nothing. There is nothing worth having that can be had for nothing: some person has to pay for it. Why are those who derive the benefit not willing to pay for the protection? Why should those who have no interest in grain-growing pay for the protection of those who make their living out of wheat-growing? Some years ago the people of Manitoba were charged with wanting to be spoon-fed. The charge was denied, but I am afraid that we pleaded "not guilty" too soon. It's an old and true saying that Providence helps those that help themselves. It may not be out of place here to look back over the history of Canada and see how Governments taking hold of matters that should have been left to the people have panned out. A number of years ago the Old Parliament of Canada passed a bill known as the Municipal Loan Fund Bill. A large number of municipalities took advantage of the act and borrowed eagerly. A few paid some interest, but by far the larger number neither paid interest nor principal, and this state of affairs ran on until after Confederation, when Sir Oliver Mowat brought a bill into the Ontario Legislature to wind this matter up. Some years ago the Government of Manitoba passed a bill known as the Seed Grain Act. By this Act they loaned large sums of money to municipalities for the purpose of purchasing seed grain for the settlers. But though this took place many years ago, a large number of these seed-grain notes are yet unpaid, and some of the municipalities have for years been asking the Government to relieve them of the liability, or, in other words, wipe out the indebtedness. Should not these and many other reasons that might be given be a warning to the Government to leave all such matters to be managed by the people themselves.

But, if the Government is going to pass an act to protect the farmers against hail, why not include frost and drought? I have no doubt but more grain was destroyed last year by drought than has been destroyed in any year since Manitoba was settled. Millions of dollars would not pay for the damage done. Another reason why such a bill should not be enacted: A large number of municipalities have borrowed money from the banks to keep the machine running until they can collect taxes, and some of them have frequently to renew their notes. Will it make the case better to compel them to provide for another liability? I don't think so. Therefore, I say that government hail insurance is not required. The people that grow grain can have protection from hail if they are willing to pay for it, and the man that is not willing to do that, but wants someone else to pay for him, does not deserve any protection. A FARMER.

Wants 1,000 Horses.

Lt.-Col. Dent, appointed by the British Government for the important purpose of purchasing horses in Canada for the British army, arrived in Montreal on Friday, 29th ult. His first object is to purchase, as soon as possible, 1,000 horses, and ship them to England. The first lot will go by way of Boston or Portland, dependent upon which of these ports has the best facilities for shipment of horses. When navigation opens, the animals purchased will go via Montreal. He announced definitely that he would recommend to the Imperial authorities the establishment of remount depots in various parts of Canada. Until after his interview with His Excellency the Governor-General, in Ottawa, he could not definitely state what his movements would be, but one thing was sure, he would visit the Northwest, as there was considerable disappointment on this head last time. Lt.-Col. Dent is accompanied on his tour by Major Ormsby Gore, of the 11th Hussars, and Dr. Jas. Fraser, V. S., brother of Mr. A. P. Fraser, East Zorra, Ont. The latter is making a minute inspection of the shipping facilities at Boston and Portland.

Annual Meeting of the Western Horticultural Society.

The annual meeting of the Western Horticultural Society was held in Winnipeg on March 14th, an afternoon and an evening session being held. The attendance was small. The executive reported as follows:

The first issue, and one which occupied a large share of attention at the last annual meeting, was the San José Scale Bill. Three years ago, when the bill was pending, before it was passed and during the past two years since it has come into operation, the Society has offered the most vigorous opposition to those of its provisions which prohibited us from importing nursery stock, especially from the neighboring States of Minnesota and Wisconsin. We are pleased to be able to report that important concessions have been made in the provisions of the bill, and the importation of trees, etc., is now permitted during the planting season, under certain restrictions as to fumigation. This modification removes the worst features of the bill, but the changes are not even yet all that can be desired. We are, however, grateful especially to those members of the Dominion Parliament who championed our cause for the removal of absolute prohibition.

During the last session of the Provincial Legislature your committee gave a good deal of attention to much-needed amendments in the Act for the Protection of Insectivorous Birds. Mr. W. G. Scott, our treasurer, especially took a prominent part in this matter, and, as a result, the Act has been remodelled; the list of birds to be protected has been framed in accordance with the best scientific authorities and careful personal observation, and the provisions for carrying out the Act have been greatly improved. The next step to be taken, and one to which we ought now to address ourselves, is to get the Board of Education to arrange that the bill be read and its provisions explained in every school, so that boys and girls may learn that some of the very classes of birds they have been persecuting are among the most valuable friends of the country.

The Society has on several occasions co-operated with horticultural societies in the older parts of Canada in urging upon the Dominion Government the necessity for some authoritative inspection and marking of the grades of apples sent abroad or to the Northwest for sale, so as to prevent the scandalous frauds which have disgraced the apple-packing industry. Their efforts have at last been successful, and now an Act has been passed providing for Government inspection and stamping. This will protect the honest shippers, and henceforth the man who buys an unstamped barrel of apples is informed that he is taking an unnecessary risk.

A deputation from the Society recently interviewed the Minister of Agriculture of the Provincial Government, and made an arrangement by which henceforth the annual report of the Society and its papers and discussions will be published by the Government, along with the reports of Farmers' Institutes, the Stock Breeders' Societies and similar associations. This will be done at the cost of the Government, and our annual grant of \$200, most of which has been required to pay our printing bill, will be set free for aggressive work in the way of extending the interests of horticulture.

The election of officers resulted as follows:
 President—Prof. Baird.
 Vice-Presidents—S. A. Bedford, Brandon; A. P. Stevenson, Nelson; Angus McKay, Indian Head; W. H. Tomlin, Kildonan; John Coldwell, Virden; Richard Alston, Winnipeg.
 Secretary—Melvin Bartlett.
 Treasurer—W. G. Scott.
 Councillors—Alderman Barclay, Richard Waugh, G. H. Greig.

A discussion took place on the regulations governing the San José scale, by a number of those present. Mr. A. P. Stevenson considered them very unsatisfactory, as entailing too much risk. If the buds on the nursery stock were even slightly advanced, the fumigation would kill them. He favored inspection at port of entry, and then any stock infected with the scale might be destroyed. A resolution to this effect was afterwards passed. Mr. J. B. Rodgers, of Newark, New Jersey, the worst infested State in the Union, being present, gave some interesting information regarding the ravages of the San José scale, stating that henceforth none but specialists need attempt fruit-growing in that State. Anyone who was not prepared to fight the scale on scientific principles could not hope to do anything in fruit culture where the scale exists. He believed that sooner or later it would find its way even to this country, no matter what precautions might be taken.

Mr. A. P. Stevenson, of Nelson, gave an interesting report of his visit to the annual meeting of the Minnesota Horticultural Society, a synopsis of which has already appeared in the ADVOCATE. John Coldwell, of the Virden Nurseries, read a paper on Tree Planting, which we may publish in a later issue. An exhaustive paper on Beekeeping was contributed by Mr. A. Du Pasquier, Notre Dame de Lourdes, giving a resumé of his experience with bees in Manitoba. He has been very successful, and has now a large apiary.

At the evening session Prof. Hoverstadt, of the Crookston Experiment Station, who had been delegated from the Minnesota Horticultural Society, gave a brief review of the work of his station. He said he looked to the Canadian Experimental Farms at Brandon and Indian Head for the solution of many of the difficulties in fruit-growing common to

Manitoba and Northern Minnesota. Prof. S. Green, Horticulturist of the Experiment Station at St. Anthony Park, delivered an interesting address on Agricultural Education, which was highly appreciated. During the discussions, Prof. Green contributed many valuable suggestions on points of interest to horticulturists. Mr. Rodgers, of New Jersey, spoke briefly on the general principles of strawberry culture, and Ald. Robt. Barclay spoke on Winter-flowering Bulbs.

Weed Seeds as Stock Food--Spelt.

Owing to enquiries regarding the feeding value of screenings, consisting mostly of pigeon-grass seed and wild buckwheat, Jas. H. Shepard, of South Dakota Experiment Station, made trials of feeding these seeds to stock, and reports his investigation as follows:—

The seeds were simply ground in an ordinary feed mill and mixed with water. Computation and practice have shown that three and one half pounds of the pigeon grass and three and one half pounds of wild buckwheat seed will make a good maintenance ration for pigs weighing 125 pounds. In fact, this ration is equal to two and one half pounds of corn and three pounds of bran. In making these computations only one-tenth of the crude fiber was estimated to be digestible.

These weed seeds fed to horses have given poor results indeed. They seem to affect the kidneys severely; so much so that it is advisable to screen them from oats when the proportion of weed seeds is too large. The sheep breeders here are now buying these weed seeds at the rate of \$5 per ton, and are obtaining good results in fattening sheep for the market. The analyses follow:

WILD BUCKWHEAT SEED (POLYGONUM CONVULVULUS)		
	Air-dry substance.	Water-free substance.
Water.....	9.28
Ash.....	2.15	2.37
Ether extract.....	3.30	3.63
Crude fiber.....	13.25	14.60
Crude protein.....	8.36	9.21
Nitrogen-free extract.....	63.66	70.19
Total nitrogen.....	1.34	1.18
Albuminoid nitrogen.....	1.32	1.16

GREEN FOXTAIL SEED (SETARIA VIRIDIS)		
	Air-dry substance.	Water-free substance.
Water.....	11.27
Ash.....	3.49	6.19
Ether extract.....	6.02	6.78
Crude fiber.....	12.48	14.06
Crude protein.....	16.12	18.16
Nitrogen-free extract.....	48.62	54.81
Total nitrogen.....	2.58	2.90
Albuminoid nitrogen.....	2.29	2.39

YELLOW FOXTAIL SEED (SETARIA GLAUCA)		
	Air-dry substance.	Water-free substance.
Water.....	13.40
Ash.....	8.16	9.42
Ether extract.....	4.36	5.00
Crude fiber.....	23.35	25.29
Crude protein.....	12.09	13.96
Nitrogen-free extract.....	36.63	42.33
Total nitrogen.....	1.93	2.23
Albuminoid nitrogen.....	1.81	2.12

Spelt has many points recommending it to breeders in sections where ordinary grains are liable to suffer from drought. It has been largely advertised, and perhaps some extravagant claims have been made for it; but, after making due allowance, trials at this Station have shown that it is worthy of a high place among our small grains used for stock feeding. Comparative trials with sheep are now in progress. A balanced ration for a milch cow weighing 1,000 pounds can be obtained by using sixteen pounds prairie hay, six pounds bran and six pounds ground spelt. This gives a nutritive ratio of 1 to 5.4. Both computation and practice show this to be a model ration, giving maximum results in the production of butter and milk. The analysis which follows is for the whole grain and husks together:

SPELT (TRITICUM SPelta) GRAIN AND HUSKS.		
	Air-dry substance.	Water-free substance.
Water.....	10.172
Ash.....	2.956	3.29
Ether extract.....	2.467	2.75
Crude fiber.....	11.439	12.75
Crude protein.....	11.571	12.90
Nitrogen-free extract.....	61.388	68.31
Total nitrogen.....	1.81	2.01
Albuminoid nitrogen.....	1.42	1.58

Carman Poultry Association.

The poultry fanciers of Carman held a meeting in the office of W. J. Ede on the afternoon of Wednesday, March 13th, and formed the Carman Poultry Association for the advancement of poultry interests. The following officers were elected: Hon. President, Hon. R. P. Roblin; President, F. J. G. McArthur; Vice-President, H. A. Cox; Secretary-Treasurer, Jos. B. Jickling. Executive Committee—Messrs. W. J. Ede, H. P. Simpson, E. McKnight, C. E. Pell, Dr. W. H. Smith, and H. H. Hinch.

The Association will hold monthly meetings, partly devoted to practical instruction. Each one of the different members is taking up the breeding of one or two of the leading varieties, and the Carman "string" will doubtless have to be reckoned with in future at our leading poultry shows.

Satisfied.

GENTLEMEN,—I have received the Bagster Bible, for getting two new subscribers for your valuable farm paper, the FARMER'S ADVOCATE, and must say that I was most agreeably surprised. I did not expect anything of such value. Please accept my thanks for same, and I will try to put your valuable farm journal in the home of more of my friends.

ROBERT L. JARVIS.

Vegetables Suitable for the Farmer.

[Read before the Western Horticultural Society, by H. C. Whellams, Kildonan, Man.]

Last fall while enjoying a tour through different parts of the Province, I was greatly impressed with the fact that, while the number of farmers' gardens was steadily increasing, there was a great want of knowledge in the selection of the different kinds of vegetables which are best adapted not only to this Province but also to the needs of the farmer. I found it quite the exception to see a properly ripened onion; on many the necks were as large as the bulbs, while it was no uncommon sight to see beets intended for table use that would require a kettle the size of a wash-boiler to cook them in. These mistakes have brought many disappointments. Now, the object of this paper is to endeavor, if possible, to help those who have not had the opportunity of testing the different varieties offered by the seedsman, and who have not the time to experiment, but who are desirous of supplying their table with the products of a well-kept garden. The amateur fruit-grower has a better chance than the would-be gardener, for all he has to do is to be a member of the Western Horticultural Society, read their reports, and deal with a Manitoba nurseryman; but the way is not so clear for the gardener. He gets a seed catalogue and gets himself bewildered in a maze of varieties of which he knows nothing. Thinking he sees a clear way out of the difficulty, he reads the descriptions given, and these in many cases are as alluring and misleading as the colored plates in the sample book of the itinerant fruit-peddler. As it is not my intention to deal with the cultivation of vegetables, but merely the selection of them, it is necessary that I should say something about the procuring of seed. If you look at the guarantee given in most seed catalogues, you will find that they do not even guarantee that the product will be true to kind or description, so that it is evident that unless their customers have had previous experience, the selection he makes must be to a great extent a matter of speculation. One of the first rules of success will be to purchase seeds only from the seedsmen who have their own trial grounds and test all their own seeds, or those who handle nothing but tested seeds. In the following list, only those seeds which have proved themselves of undoubted merit are mentioned, the standard of their excellence being based on their quality, productiveness, and earliness. The list is by no means an extended one, as it is not necessary for the farmers' requirements, nor has he the time to look after a number of different kinds when one good variety will suffice.

For the early kind of bean, Golden Wax, a dwarf variety, is one of the best. White-seeded Wax is a good snap bean, as well as most productive as a shell bean. For a later variety, the Broad Windsor is recommended.

Among the beets, first early, Crosby's Improved, the Flat Egyptian, the Bassano, and the Early Eclipse.

Cabbage for early use, Jersey Wakefield; second early, the Early Summer, Fottler's Improved Brunswick, Vandergaw; late or winter varieties, Autumn King, Late Drumhead. Red cabbage, Mammoth Red Rock. Cauliflower, first choice, Henderson's Snowball; Whitehead and Gilt Edge for second; and extra early dwarf Erfurt, third.

Carrot, Chantenay, Half-long Scarlet—this is a stump-rooted carrot, large shoulder, and very productive, easily harvested. The Half-long Nantes and Half-long Danvers are also worthy of note.

Celery, White Plume and Pink Plume.

Corn, Early Cory, Crosby's Early, and Kendall's Early Giant—this latter variety is but little known, but has a particular merit, large ears, very productive, early, and finest flavor of all varieties I have tried.

Cucumber—White Spine and Livingstone's Evergreen for table use; for pickling, the extra early Long Green, picked when from four to five inches long, is superior to any other variety for that purpose.

Lettuce, Black Seeded Simpson and the Toronto Gem.

The red-seeded citron is the standard for preserving.

Onions—the Yellow Globe Danvers and the large Red Wethersfield are what we usually grow, but when planting is delayed, we use the Extra Early Flat Red—this is a particularly good variety for late sowing, and specially valuable to those who cannot get to their gardens until after their wheat is sown. For pickling, the Adriatic Barletta will produce a greater percentage of bulbs of the size suited to that purpose.

Among the pumpkins, sweet or sugar, the Japanese Pie is the best quality for culinary purposes, and if the largest pumpkin is desired, the Jumbo or Mammoth King.

The Hollow-crowned Parsnip and the Student are both good, but it must be remembered that to secure a good crop they must be sown as soon as the ground can be worked in the spring.

One of the greatest sources of disappointment to the gardener is the production of some of the extra early varieties of peas. You get everything but the flavor, and so for our purpose I will only enumerate those in which this and other desirable qualities are contained. For first sowing, American Wonder, Little Gem, and Manitoba Premium; later varieties, Heroine and Stratagem.

The Bovee is the best of all early potatoes I have tried; it is a good shape, a good cropper and keeper,

all the tubers being of a large and even size. The Early Fortune is also productive and of fine quality as an early variety, although it is not a good potato for winter use. The Early Ohio is also a good variety in rich ground. Among the new kinds of late potatoes is Dreer Standard, a very large tuber, and, when properly ripened, fully equal to any of the old standard varieties, such as Beauty of Hebron, Early Rose, and the Early Puritan.

The Early Scarlet, White-tipped and the Long Cardinal are good radishes.

For pies and preserving, the Victoria and Strawberry rhubarb are recommended.

The Victoria and Savoy-leaved spinach are what we usually grow for early greens.

There is no vegetable so much sought after as the squash when once known. The Mammoth Wartyed Hubbard is of great quality, and will keep in the cellar until the 1st of February, making a most acceptable change among the vegetables during winter.

Another distinct variety is the Long White bush marrow, but this is not a good keeper.

The Early Ruby tomato will always, with good cultivation, produce a fair amount of ripe fruit.

The Extra Early Milan turnip, for summer use, and Hazard's Improved Swede, for winter keeping, concludes the list.

Soil Fertility and Live Stock.

[A paper read by Arthur C. Hawkins, before the Lorne Agricultural Society.]

The subject which I have chosen is one of ever-growing importance to the farmers of Manitoba, and I am glad to see that a very large number of progressive farmers recognize the importance of it. We all are aware that the wonderful richness of our prairie soil is in a great measure due to the humus accumulated in it by the decay of the natural vegetation which has been going on for centuries. As soon as we break up the virgin sod, and sow the land to grain, each crop removed takes with it a portion of this accumulation of fertility, each year bringing us nearer to the time when it must be replaced artificially if we would maintain the fertility of our soil. Plants, like human beings, require to be fed, and while, like ourselves, they will retain a certain amount of vitality even in the hardest times, they are equally susceptible to the pinch of poverty, and refuse to do their best on half-rations. Summer-fallow has been looked upon too long as a substitute for manure, partly, I think, because farmers have not figured out the reason why a good summer-fallow has been followed by a good crop, namely, that during the season of idleness a supply of unavailable plant-food has been rendered available by disintegration and decomposition, and the result is a more rapid exhaustion of the soil. Every one must have noticed the difference in texture of the surface of old cultivated land: it bakes on the surface after heavy rains, dries out more quickly, and is more easily drifted by the wind. This is more particularly due to the alteration in the mechanical texture of the soil by the removal of the decaying vegetable matter it once contained, and is sufficiently serious to call for our immediate attention, even allowing that the soil itself still holds a sufficient reserve of plant-food.

There are two ways in which we can improve the mechanical texture of the soil, both tending to restore a certain amount of the humus which we have removed: (1) *By seeding to grass*, which on the majority of farms will for the present have to be the principal method adopted, not merely as a means of resting, improving, and cleaning the land, but also as enabling us to increase our stock, and, as a consequence, increase (2) *our supply of that best of all fertilizers, "barnyard muck."* I maintain that the quality of stock kept is restricted more by want of summer pasture than winter feed: results of compulsory straw-feeding this winter prove it. Bad as the straw was, stock have held their own, and where a small ration of grain had been fed, have done well. It seems to me it is a shortsighted policy to wander around and pay out good money for hay land (not to mention the extra work entailed) when enough straw is destroyed on most farms every year to winter a large number of stock and provide a large quantity of valuable manure. I like hay for calves, but have wintered mine this winter on wheat-straw, *ad lib.*, and a gallon of crushed oats each, a day, and as a result sold my steers early in February for \$18 apiece, for immediate delivery. One thing has simplified the utilization of our manure, namely, scientific experiments, which have proved that fresh manure is the most valuable as a fertilizer. It follows from this that we are perfectly safe in drawing manure straight from the stables to the fields, doing the work in winter, at the easiest time, and making it possible to pay our store bills out of the proceeds of our crops and stock instead of selling cordwood at a price which, even if we could steal it ready cut, would hardly pay fair wages for the hauling. *Theoretically*, the danger of spreading foul seeds is great; *practically*, I have not found it so. My idea is that the melting snow starts germination, and the subsequent cultivation finishes it, and not only starts the seeds actually present in the manure, but the warmth and moisture at the surface, consequent on the presence of the manure, starts innumerable seeds which would not otherwise germinate until turned under, thus cleaning the land in place of feeding it. There are several points to be considered with reference to the application of manure, which can only be decided on local conditions. For instance, I

would not advocate giving a very light sandy soil a heavy dressing of long, strawy manure, and plowing it down for crop; at the same time, I believe that a top-dressing after the crop is in would be highly beneficial on such land, and would improve subsequent crops, and I believe a top-dressing from those old rotten manure piles on a growing crop would benefit both it and subsequent crops. The old piles can be utilized on grass land with very good results. I gave a heavy top-dressing to an old worn-out timothy field, and the following year had a heavy load to the acre, though a poor hay year, and what was not manured was not worth cutting. I will point out a few of the advantages of manuring:

First, the enrichment of the land chemically, by supplying the nitrogen, phosphoric acid and potash required for the growing crop; *second*, rendering the soil more porous, and, as a consequence, more capable of resisting frost and drought. Low-lying, cold, soggy lands which are drowned out in a wet season are also the first to suffer in a dry one. The plants are suffocated, the land is run together and baked solid, and instead of a constant supply of air all through it, the air only penetrates in the cracks formed by the shrinking apart of solid masses just as ice cracks on a lake. In a friable soil the air permeates all through it, and the evaporation of the water contained in the lower strata of soil keeps up the supply of moisture in the upper soil required for the growth of the crop. Here let me suggest that the dirt blanket we read of, as I take it, not meant to prevent evaporation, but to check excessive evaporation. Manure is of commercial value according to the chemical contents, which are greatly influenced by the food of the animals producing it: the richer the food, the richer the manure. Manure rotted in the ordinary pile will lose about one half its weight. In an experiment conducted at the Central Experimental Farm, Ottawa, the manured plots gave more than double the produce of the unmanured: this for an average of twelve crops. Fresh manure, weight for weight, has equalled in results the rotted manure, and in the case of oats, exceeded it. Taking present commercial values of nitrogen, phosphoric acid, and potash, one ton of barnyard manure is worth from \$3.30, for sheep manure, down to \$2.17, for calf manure. A well-fed horse will produce five tons per annum, worth \$2.21 per ton, equal to \$11.05 per horse per annum. How many horses do you keep, and how much of that enormous sum is annually wasted by our farmers? I find, by referring again to Experimental Farm reports, that a four-year grass rotation of wheat, barley, potatoes, and hay, will remove from one acre of land, 222 lbs. potash, 80 lbs. phosphoric acid, in addition to nitrogen, etc., which can only be returned by manuring in some form or other. *We have in our straw stacks and cattle the readiest and best means of returning it.*

Obituary.

Jas. Molland, a pioneer farmer of Glendale district, died at his home on March 8th. Mr. Molland was well known throughout the Province; he held a position on the directorate of the Provincial Mutual Hail Insurance Company for many years, had taken a prominent position in Farmers' Institute work, and had been an occasional contributor to the FARMER'S ADVOCATE.

J. W. Vantassel, a well-known and respected farmer, of Brandon, died on March 12th, from injuries received, having been attacked by a bull in his own yard. The bull, a Devon, had been considered a peaceable animal, but evidently displayed one of those sudden fits of anger which make it so imperative to regard all bulls with suspicion and handle them in such a way that they are always under control.

Sensible Suggestion to Governments.

Lord Salisbury is convinced that it is quite possible for Parliament to meddle too much with private enterprise and commerce. This constant interference with personal liberty is a formidable danger, he says, tending to discourage labor and to dry up the sources of capital. If there really is a decadence of British trade going on, His Lordship thinks its cause may possibly be traced to this interfering spirit. "The sensible old Premier is perfectly right," observes the *Toronto Globe*, which adds: "Legislation should in general confine its function to the removal of obstacles, natural or artificial, from the path of labor—that term embracing capital as simply one of its forms." Not only is it a bar to enterprise, but it tends to pauperize and enfeeble the energies of those it is supposed to benefit, and when the cost which the general taxpayer contributes is also counted up, it will usually be found that it would have been in every way better to let people manage their own affairs rather than by means of officialism. Canada has in the past had a good many unfortunate examples, both federal and provincial, arising from the various ill-advised efforts of this description in connection with agricultural affairs.

We would direct the attention of those of our readers who wish to ask us questions to the new conditions at the head of the Questions and Answers Department in this issue.

A Grass Rotation Necessary.

The old land that has been cropped for several years is considerably exhausted, but not so much so as the past year's crop would seem to indicate. A great deal of the poor crop is due to careless and very bad cultivation. Never seeding down to grass, and with the foolish, wasteful system of burning straw, it is impossible to have manure to put on the land; the result is dirty fields, poor crops, and poor farmers. A number of our best farmers had remarkably good crops last year, considering the very dry season, which can only be accounted for by the better system of farming followed. Sowing wheat continuously until the land refuses to yield paying crops, then oats for another term of years, to be followed by a crop or two of barley, is called by some a "rotation of crops," but such is a mistaken application of the term, for there can be no rotation that will keep up the fertility of the soil without grass, and the sooner we realize this the better it will be for us and the country. We must remember we have to deal with "tired" land, not so much old, worn-out land, for I do not think we have got to that stage yet. Select the grass best adapted to your soil and locality. There are three varieties: timothy, native rye grass, and Brome. I have no hesitation in saying timothy is best for me, but I do not think it would be in localities where the land is light. I would suggest, if you are not sure of the most suitable grass, that you consult the Superintendent of the Brandon Experimental Farm, who can give valuable advice, as he is familiar with the soil in almost every district in the Province.

Any field that is fit to produce a fair crop of wheat will grow timothy or one of the grasses mentioned. Mix grass seed in the box of seed drill with wheat, about eight pounds per acre. Be careful to mix evenly. This plan works very well with me.

As the average farm in Manitoba is a half-section (320 acres), I would aim to divide it into eight fields of about 40 acres each: a lane running through the center to the two back fields. Four fields, or 160 acres, should be in grass, and the other 4 fields, 160 acres, in grain: 2 in wheat, 1 in oats, and 1 in barley (crushed barley makes good feed, mixed with oats, for all kinds of stock). I know farmers who will laugh at the idea of having only 160 acres of grain on a 320-acre farm, but it is not so much the number of acres as the number of bushels per acre that count. The land I have handled in this way gave a good account of itself last year, as I had a good all-round crop, and last year was a good test. A rotation of crops, including hay and pasture, means fencing the farm, but it pays to fence. On a 320-acre farm run on this plan one should be able to keep 18 or 20 cows. Good cows ought to make \$20 or \$25 in six months through a creamery, and their calves will bring \$10 to \$15 each, which the cows ought to get credit for. Then the cows would make in six months \$500 or \$600, which, together with a horse or two to sell each year, would soon pay for fencing.

Another great advantage from this rotation is that a farm can be run with less horse power. Six good horses will run a farm of the size mentioned. Horses are very expensive animals to keep, as most farmers know, to their cost. Less machinery is also required. By keeping all the stock a farm will carry, no straw will be burned, but all converted into manure, which can be put on the pasture fields any time it is made, winter or summer. The season's work can be better divided, and with good management, no big rush any season of the year is necessary.

Seed down one field every year: cut one or two crops of hay, then pasture. Break up a pasture field every year: put the manure on the pasture land for best results and clean land: foul seeds can't live in a pasture very long. After the hay is cut and raked, turn the stock on the meadows, break up the pasture about the first of August, disk it well after harvest, don't harrow until spring, sow wheat, and the result will be a bright strong straw and clear amber No. 1 hard crop equal to that from the virgin soil when it was full of vegetable matter or humus. I don't know of any better way to conserve moisture than by keeping the soil full of humus in the shape of grass roots and manure. The meadows and pastures are tramped down firm, giving a solid bottom, and a few inches of loose surface soil gives the best results. The covering of moisture is one of the most important questions. By the rotation suggested, land will only be plowed about 3 times every 6 years, and will never get very loose and never drift. You will notice by this system summer-fallow is done away with. I don't think we can afford to let from 20 to 40 per cent. of our land lie idle every year. I don't know any business that can afford to let 20 or 30 per cent. of the capital lie idle, and I don't know any business in which there is closer or keener competition than in farming. We must not trust to wheat-growing alone: there are other countries that can grow wheat cheaper than we can. The only advantage we have over them is that we can raise a better article and realize a few cents more per bushel. On that account, if we so treat our Manitoba lands that we fail to grow No. 1 hard, then we are out of the business as wheat-growers.

J. J. KING,
Louise Municipality, Man.

Improve Cheese and Butter by Improving the Milk.

Canada, through its Dominion and Provincial Parliaments and many of its citizens, has spent barrels of money and tons of energy placing the cheese and butter manufacturing industries in the front ranks. How far success has crowned the efforts, the millions of pounds of cheese exported annually and the vast increase in the butter-export trade each year bear ample witness. But, for the past year or two, the fight for supremacy in the British market for our cheese has had to be renewed, largely on account of some deterioration in quality. Makers have been thoroughly educated to turn out the best possible product, and special efforts are being turned to the thorough education of the milk-producer—the farmer. There has been little or no improvement made along the line of having clean, unadulterated milk furnished to factories and creameries, as year after year we read in the newspapers the old list of convictions for tampering with the fluid given by the dairyman's faithful servant—the cow. There are hundreds of cases, too, that are never heard of outside the immediate neighborhood where the culprit lives. The great question is how to get at the milk producer. Farmers' Institutes, cheese, creamery and dairy meetings are held, and the farmer is told all about the bacteriological world, with its millions of inhabitants, and he goes home somewhat bewildered with the big names for such little creatures, does nothing to improve, because, he reasons, "Oh, well, I get just as much for my milk as any of the others." These meetings are doing good and should be maintained, but, from an experience of three years among farmers in connection with a large creamery, I have arrived at the conclusion that to make any permanent improvement the farmer must be shown that he is losing money by not taking good care of his milk. That is, it must be brought home to him, month after month, that his careless habits and inattention to well-known rules (for they do not all do as well as they know) make his returns less than they otherwise would be. If this can be done, he will soon take hold and make improvement.

The greatest hindrance to much more rapid improvement in the milk supply is the evil of the pooling process of taking in milk—that is, paying every patron the same price per hundred pounds for milk furnished, whether it is from a Holstein herd or Jersey herd, whether properly cared for or whether no attention has been given to it. Milk should be taken only on the test system, and careless, slovenly patrons will soon learn by sad experience that they are paying dearly for their lax methods. Some scheme should be devised that will compel every cheese factory to pay for milk by Babcock test, adopting Prof. Dean's method of adding 2 per cent. to actual reading, which, I understand, is the best known method of arriving at proportionate value of milk for cheese. This can be accomplished with small expense to patrons. Central test stations could be opened, where creameries and cheese factories would send their sample test bottles for testing. This would answer the excuse that is now advanced that cheesemakers have not the experience to make tests; also, it would meet the objection that one factory would read tests higher than another.

Patrons would soon learn that the better care they take of their milk the more absolutely correct would be the test, and in this way the quality of cheese and butter would be greatly improved.

I am perfectly aware that this proposition will not remedy all troubles in this connection, but believe that it would place in the hands of makers a leverage that, properly used, would effect a great change for the better.

W. K. MACLEOD.

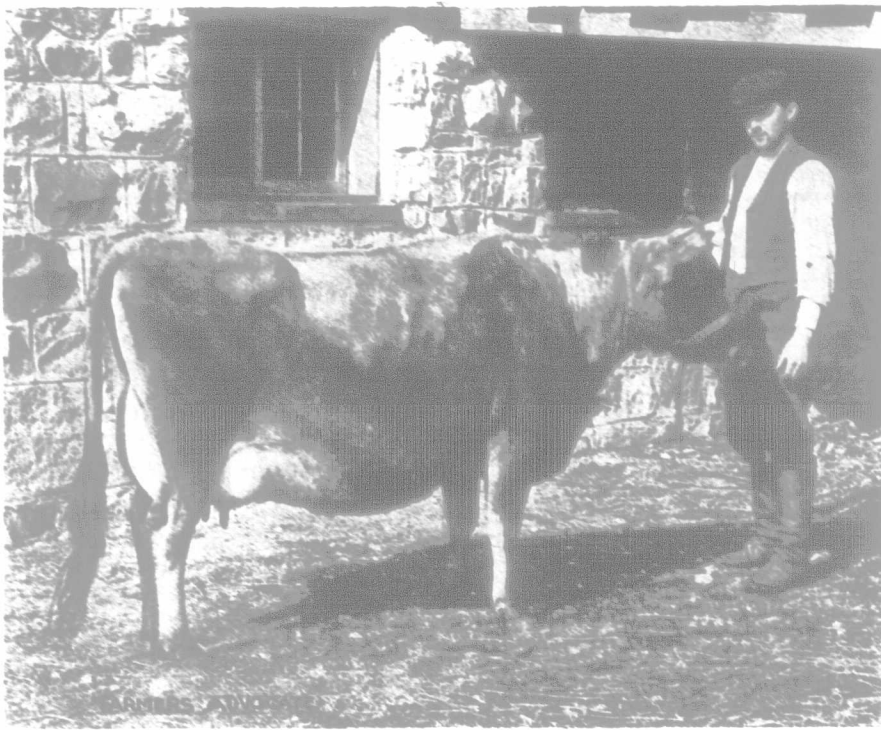
Test the Dairy Herd.

There can be no question of the value of the test as it may be applied to the cows in a dairy herd. Differences between farmers' tests of their own milk and the tests given to them at the creamery need be feared only where the creamery tests, through juggling or incompetency, are inaccurate. A competent and trustworthy creamery test is essential, not only to justice in the relation between creamery and patron, but to true progress in the dairy industry. It is doubtless true that farmers will show varying degrees in proficiency in making milk tests for fat, but if the creamery test is kept exact, and can be shown to be so to the satisfaction of any reasonable patron, errors of manipulation on the farm will gradually be overcome and corrected. This may make some trouble, but it is more than worth it. If a patron can once be induced to get a Babcock test and use it to determine the value of each individual cow in his herd, the first great step is taken toward more profitable work for farmer and creamery alike. When a farmer begins to look

at his cows from the point of view of scales and fat test, he is virtually won over to the side of intelligent dairying, and may be counted upon for all that this implies—progressive cow care and breeding, careful handling of milk, and valuable influence in his community.—*New York Produce Review.*

A Wild-flower Garden.

In turning over the pages of our seed catalogues we frequently find an offer of seeds for the "wild garden," and many have invested in these with very satisfactory results. But the investment is a very dangerous experiment, as one is not unlikely to find among the plants some which may become dangerous weeds. A wild garden has, nevertheless, its charms, and if one wishes to enjoy it without the risk referred to, this may easily be done by employing only our native plants. One such garden in Ontario was commenced with a few transplanted violets, and gradually enlarged to include many of the most beautiful of all wild flowers and ferns of Western Ontario. A similar garden in Manitoba can be made equally beautiful. There are here a large number of plants whose flowers will merit a place in the garden, and which, under the influence of cultivation, are capable of considerable development. Most of them bear transplanting well; others are best grown from seed. It is needless to give a list of such plants. The lover of flowers will have his plot ready, and when in his rambles he finds a suitable plant, will carry it carefully to the place prepared for it. The number of varieties or species which will thus be secured will be a surprise to even those who know our plants. A few names might, however, be suggested as a nucleus, something to start with: Violet (three species common in Manitoba), prairie clover (violet and white), roses (two well-known



PRIMROSE PARK'S PRUDE 80475.

FIRST-PRIZE JERSEY COW, ONTARIO PROVINCIAL DAIRY SHOW, 1899. BUTTER RECORD, 543 LBS. WITHIN 12 MONTHS. WEIGHT, 1,040 LBS. PROPERTY OF W. J. CRAIG, LONDON, ONT.

The registered Jersey cow, Primrose Park's Prude (illustrated above), is a good model of the ideal business dairy cow, having a record of 543 lbs. of butter made from her milk within a year, commencing November 20th, 1899, and ending November 17th, 1900. She was the only cow kept by her owner, Mr. W. J. Craig, of London; and while she was well fed, no attempt was made to force her for an extraordinary record; and the manner of handling her milk was far from such as was calculated to make the most of it for a butter test, as it was creamed on the old-fashioned plan in shallow pans, and churned in a common dash churn in such high temperature that usually the butter came in about ten minutes—a system which up-to-date buttermakers well know must fall far short of securing all the butter that is in the milk. This cow, her owner asserts, has given 40 lbs. of milk per day when at her flush, testing 64 per cent. butter-fat. At the Provincial Dairy Show, at London, in December, 1899, in strange company and on inferior hay supplied with other feed, she gave 65.9 lbs. in 48 hours of the trial, testing 6.9 per cent. butter-fat the first day and 7 per cent. the second day. Under more skillful care and treatment, it is clear that this cow is capable of doing very much better work than she is credited with, and her conformation and udder development proclaim her a dairy cow of great capacity.

varieties), spiderflower (*Cleome integrifolia*), wild peas (several fine varieties), wintergreen (white and pink), cone flower (sweet scented), spiraea, asters, golden-rod, etc.

Another feature which will recommend the "wild-flower garden" is that here may be placed any plant which excites our curiosity or admiration, and whose development we might wish to observe. It is also a haven of refuge for many a bright flower which would feel lonesome among the more daintily-bred dahlias and poppies and pansies.

M. B.

"Farmer's Advocate" is Up-to-Date.

SIR,—I suppose it may seem like acknowledging receipt of your paper at the eleventh hour, but rest assured that it is not from want of appreciation. I have been much pleased with it indeed. As a general thing, when night comes, the first thing in the form of farm information that comes to my mind is the FARMER'S ADVOCATE, as it is up-to-date in all its information, and I would not be without it for twice the amount. As a new subscriber, I indeed wish you the full measure of success your paper deserves.

HENRY MACDONALD.

Feathers or Eggs?

BY JOHN B. PETTIT.

It is with deep and increasing interest that I have read the many valuable articles dealing with the numerous phases of the poultry industry, that have appeared in the columns of the FARMER'S ADVOCATE during the last two or three years. I have also made it a point to read anything that might appear upon this subject in the other publications we receive, whether they be agricultural journals or not, and have been the regular subscriber to one of the best American journals devoted to poultry only. Of course, as a result of this, there has been the expected consequence, I know a little more about our old friend the hen and the poultry industry than I did before such articles became so interesting, and have come to the conclusion that in the past the hen has been treated more as a foe than a friend, and has not been given "a ghost of a chance" to demonstrate her possibilities. I am also of the opinion that the poultry industry is but in its infancy, and that Canada is being awakened to the fact that she can bring many millions of John Bull's gold across the Atlantic, in exchange for our eggs and dressed poultry, and am pleased to note the efforts the Governments are making to introduce our products, and the methods they are employing to educate our farmers in producing the proper article.

Spring is almost with us again, and with spring will come the time to give "biddy" a rest from the work she has been faithfully carrying on during the cold winter months—if she is a profitable "biddy"—and to allow her to keep a nice big nestful of eggs warm for a few weeks. The time of incubation will soon be with us, and many will be investing in eggs or in birds to "mate up" with their own in order to improve their flock. Now, the question that the farmer should consider, and consider very carefully, is along what lines is he going to introduce his improvement.

Already the agricultural journals are presenting to their readers a great many poultry advertisements in which eggs and birds are offered. The poultry journals are simply full of them, some of the latter having as many as upward of five hundred distinct advertisements in them. I have taken the pains to look into these, and in about 95 per cent of them you will find some such phrase as "Brown," "Buff" or "Barred to the skin"; "Thompson strain," or something of that nature. Then they will go on and give the number of prizes won at Toronto or Montreal, and at Chicago, and Boston. To finish up, they give us the scored points of the individual members of their "mated up" pens, at the head of one of which is "the cockerel, 'Perfection,' score 93; at Toronto, 1900; this the son of 'Queenie,' score 92; at Montreal, '99; this the daughter of 'Majesty,' score 95 at Chicago, '98." So they run, and we find that only about three or four per cent. of all the breeders ever think it at all important to mention anything about the laying quality of their stock. The majority of the poultrymen who are presenting glowing advertisements are dealing in feathers only. They do not mention to us whether "Queenie," score 92, the mother of "Perfection," score 93, ever laid more than one egg in her lifetime or not. What would be of far greater importance would be the egg record of the strain advertised. For instance, if we purchased eggs laid by a pullet that had begun work at a very early age, was the daughter of a hen that had laid two hundred or more eggs in a year, which in turn was the daughter of a hen that had nearly reached the two-hundred mark, we would be pretty sure of hatching some pullets that would inherit the laying qualities of the ancestors, and make most excellent layers themselves.

This is the kind of improvement the farmer should introduce into his flock. The desire of the average farmer is to produce all the eggs possible. It is not many of them that can spare the time or afford the money to dabble in feathers, and feathers only,—leave that to the "fancier." He has done, and is doing, a good work. We are sorry, however, that he does not take into consideration the "laying quality" a little more than he does, and combine it with his beautiful plumage and graceful carriage. A few "fanciers" have done this, and have produced, as a result of years of thinning and weeding out of poor layers, prolific-laying strains covered with prizewinning feathers. Nearly every breed is represented in this class, and no matter what breed a farmer may have, he should look to these men to supply him with eggs or stock whereby he wishes to improve his flock. Fair play demands it, as years have been spent in working up these "laying" strains, thereby making poultry more profitable. We should appreciate this fact, and patronize them accordingly. By all means raise pure-bred fowls, try to improve your flock each year, and improve it along the line of more prolific laying, and your hens will prove to be your best-paying farm stock, and not an expense and nuisance they are with many farmers.

Details of Barn Plan, Etc.

The following correspondence, relating to a barn plan, and brief description, which appeared in the February 5th issue of the FARMER'S ADVOCATE (that of Messrs. Kinnon, Cottonwood, Assa.), bring out some further interesting details. We give extracts from a letter from a large farmer in the Moose Mountain district to Mr. Robert Kinnon, and his reply thereto:

DEAR SIR.—Seeing your cut of barn in the FARMER'S ADVOCATE, I would like a little more information, as I have to build in a year or two. I have a good house and implement shed, but only a log stable. I intend farming two sections in one block, as quickly as I can break it up, as we now have the railway for which we have been waiting since 1882.

Are the approaches under driveways built of stone or lumber, and what size are they? If of stone, I would think they would be too damp for poultry.

I don't understand what you mean by the walls being 24 inches at ground and 21 at top.

Please explain the cattle mangers and water troughs. Are there water troughs for the horses, or are they led out to water?

I think 8 feet to bottom of joists rather low in a horse stable. Most people recommend 9 feet.

I think your doors too narrow. I clean out stable with sleighs, and would make doors wide enough for wagon.

Your style of barn suits me better than anything I have seen, but I would make it about 68x100, with passage down the center from east to west; stalls for eight teams of horses, and four box stalls at north end for brood mares and colts. I would make the east part of cattle stable 10 or 15 feet wider, and divide into two or three large boxes for young cattle.

Do you store all your wheat and oats in the barn, or have you another granary; or do you ship your grain right from thresher? I do not understand the passages between the bins in your granary. Is there a narrow passage along the south side of bins and the two doors in the passage, or have you a door from one bin into the other?

About cost. Did you order lumber direct from British Columbia or from local merchants? Did you let the masonwork? Did you build the foundation on the level, or did you excavate? What was the subsoil? You have no harness room nor room for chop, feed crusher, and straw cutter.

The papers are always advocating rotation of crops with grass. What is your idea, or what do you intend doing in the future? My idea is: First year, summer fallow; second, wheat; third, oats; fourth, Brome grass; fifth, hay; sixth, pasture; and seventh, wheat or oats. It will require a lot of fencing, but I believe the sooner we get into a regular rotation, the better. Hay is getting scarcer here every year. I keep 100 head of cattle and 20 horses. The latter run out all winter, coming in in rough weather. The cattle are fed mostly on straw. They run loose in large shed. I stable only calves and a few cows. I find they do well on straw.

MR. KINNON'S ANSWER.

I am pleased to know that anyone thought enough of my barn to ask further information. In building, I did not expect to make a perfect barn, that everyone could imitate, but simply to make it substantial and as convenient as my means would allow. I selected a site that was high and dry, with a gentle slope to the south. In excavating for the foundation, it left about 3 1/2 feet of a bank on the north side, to which was added all the dirt removed from the excavation after the approaches at each end were graded up. This left about 2 1/2 feet of the north wall above ground. Under the driveways I built, 12 feet out from the barn wall, a stone wall 14 feet long, 5 feet high, with 2x10 joists to carry the bridge, closed in sides and top with double inch lumber, with tar paper between, putting windows and doors in south side, thus making pens 12x14 at each end of barn. They could be made longer—say 18 or 20 feet. They are suitable for poultry or pigpens, but need good ventilation.

A good many of the stones we had were very large, so we used the big ones in the bottom and made it two feet thick. I let the masonwork by tender. It was estimated that it required 35 or 36 cords of stone, and the tender was at \$4 a cord.

The cattle mangers are on stone foundation walls 20 inches wide, 8 or 10 inches deep, rising four or 5 inches above the floor level. Part of this will, however, be taken up with the cement when we put in a cement floor. On top of this stonework is laid a plank bedded in mortar for the manger bottom, on top of which rest the posts every seven feet to divide the stalls and support the upper floor. A twelve-inch plank is set on edge on top of the stonework against the bottom plank to form the front of the manger. On the passage side it is boarded up with a bracket spiked to the post to carry the water trough at a convenient height. The trough is square-cornered, four inches deep by six wide, zinc lined inside. The horses are generally watered at the well twenty-five yards north of the barn or may be watered in pails from the stable wells.

I have no doubt nine feet would be a better height for horse stalls. It would allow larger windows and bright even floors, which would be a great advantage for barns built on level ground. A four-foot height makes a serious error in the design.

I do not know how you intend to keep the floor clean. We clean out with sleighs, and would make doors wide enough for wagon.

We have two other granaries, which hold about 3,000 bushels each. Being eight miles from station, we thresh into bins, and market in October or November. In the barn granary there are four large bins, with a passage between each pair; a door opens out from each passage. Passages are eight feet wide—fanning mill can be used in them, filling from bins on each side. There are smaller bins over passages in stables below for chop, bran, etc., connected with small boxes in front of cattle and horses, which does away with need of feed room. If I had crusher and straw cutter I would place them over the granary, run the meal into bins and the cut straw into a mow on north side of drive floor over feed passage, where it could be thrown down, dampened and mixed with chop as required.

I made out a bill of lumber required, and submitted it to two local dealers, and gave contract to lowest tender. It was shipped direct from British Columbia, and I unloaded it from the cars, the dealer checking it over as unloaded. By this plan, and by paying cash, I got a discount of two per cent. A barn the size you propose would require three drive floors or the mows would be too wide for handy filling.

I farm one section 400 acres under cultivation, balance fenced for pasture; fallow one-third each year, and have good paying crops, with exception of '94 and 1900, when we only got half crops. Soil, dark loam, with enough grit to make plows clean; clay subsoil. Having allowed the manure to lie a year to rot in a hollow near stable, we apply in the fall to land that is going to be fallowed the following year, putting on the high spots where the soil is lightish. The hollows and level land are rich enough as yet. Most of the farmers in this neighborhood are doing well and building good substantial houses and barns. We are beginning to take more interest in stock, raising quite a few colts and increasing our herds of cattle. I have 20 horses and 24 cattle, but intend increasing the latter to 50 or 60 head. I don't know what the best rotation will be, but it must include seeding to grass. I have experimented a little. Brome has not given me any satisfaction so far. Native rye grass has done much better—will seed down more of it if last year's seeding does as well as it promises. I intend trying a few acres of corn to take the place of roots to some extent. Bran is our favorite feed, mixed with straw and a little chop for wintering stock, but it is difficult to get and very dear.

Convention Week.

I was pleased to see your remarks, under the above heading, upon the annual convention of the Live Stock Breeders' and Dairy Associations. You say that at some of the sessions discussion was very much curtailed owing to lack of time. Why is this the case? The fault must rest with the management. Would it not be far better to cut the subjects in two, and devote the time taken by the other half to a thorough discussion of the points raised? I have long ago arrived at the conclusion that it is not from the number of subjects nor the length of the addresses that the most good will be derived. We have far too many long-winded addresses, and I think too much theory. We have been threshing out some of these questions for the last fifty years, and it appears to me that upon many of them we differ as much as we did then. I would say to the management, cut the subject in two, and cut some of what is left in two again; give us a few papers or addresses on practical subjects, by men having practical experience upon the questions that they speak on. A real benefit would then be derived from a thorough discussion of the questions raised.

Braeside, Man.

JOHN RENTON.

The Winnipeg Industrial Prize List.

In the Clydesdale class of the above fair, increased prizes are offered for yearling and 2-year-old stallions and fillies, and a \$25 cup is offered by the Clydesdale Horse Breeders' Association for the sweepstakes stallion. In the cattle class, material increases to the prize list are made in the Hereford class. This was considered advisable, owing to the large and meritorious exhibit of "whitefaces" at last year's fair. In the Shorthorn class, the Dominion Shorthorn Breeders' Association again give \$500 in special prizes, and the C. P. R. repeat the specials given by them last year, amounting in all to \$288. The whole prize list has been carefully revised and many minor changes effected, with a view of simplifying rules and conducing to the interests of the exhibitors. It is promised that the prize list will shortly be ready for distribution.

Qu'Appelle Fair.

The Central Assiniboia Agricultural Society, composed of the Agricultural Societies of Indian Head, Fort Qu'Appelle, and Qu'Appelle Station, holds a union exhibition alternately at each of these points. This year the fair will be held at Qu'Appelle Station. At a meeting recently held the following were elected officers: A. Matheson, President; J. W. Miller, Indian Head, 1st Vice-President; A. McDonald, Fort Qu'Appelle, 2nd Vice-President; J. C. Starr, Secretary-Treasurer; Directors: Qu'Appelle Station, W. Henley, Jas. Smith, F. G. Whiting, J. Howden, W. G. Vicars, S. Mitchell, D. Brown, T. Carroll; Indian Head, M. M. Warden, W. Braithwaite, A. M. McLane, M. Brennan; Fort Qu'Appelle, A. D. Stewart, C. C. Fetherstonhaugh, J. R. North, Geo. Reed.

Dairy Breeds for Dairy Work.

The trade statistics of Canada show that the export of cheese and butter from this country last year figured up in value, in round numbers, to about \$25,000,000. The dairy industry is by long odds the most important branch of all the agricultural interests of the Dominion. The value of our export of live cattle for all purposes—beef, breeding, and milking—is little more than one-third of that of our export of dairy products alone, while our export of bacon, hams and all other meats amounts in value to less than one-half what is received for the cheese and butter we export. Our dairy cows proved the financial salvation of the agricultural interests of the country during the dark years of the business depression of the last decade, making money steadily for their owners, and trade for the Dominion, when nearly all other industries were down in the dumps, and the dairy business has bulked larger than any other agricultural industry in the fat years which have followed the lean ones, the export returns for dairy products last year exceeding those of 1890 by over ten millions of dollars. The average production of milk per cow per annum has been steadily increasing, and it is beyond dispute that the dairy breeds, which have rapidly multiplied in this country in the last ten years, have been very largely instrumental in bringing about this increased production. In no class of pure-bred stock have the breeders shown greater skill, judgment and intelligence in improving the type and practical working capacity of their animals than have the breeders of dairy cattle. They have worked and studied with this purpose, and have succeeded at the same time in improving the conformation and constitution of their stock, and getting nearer to a uniform type.

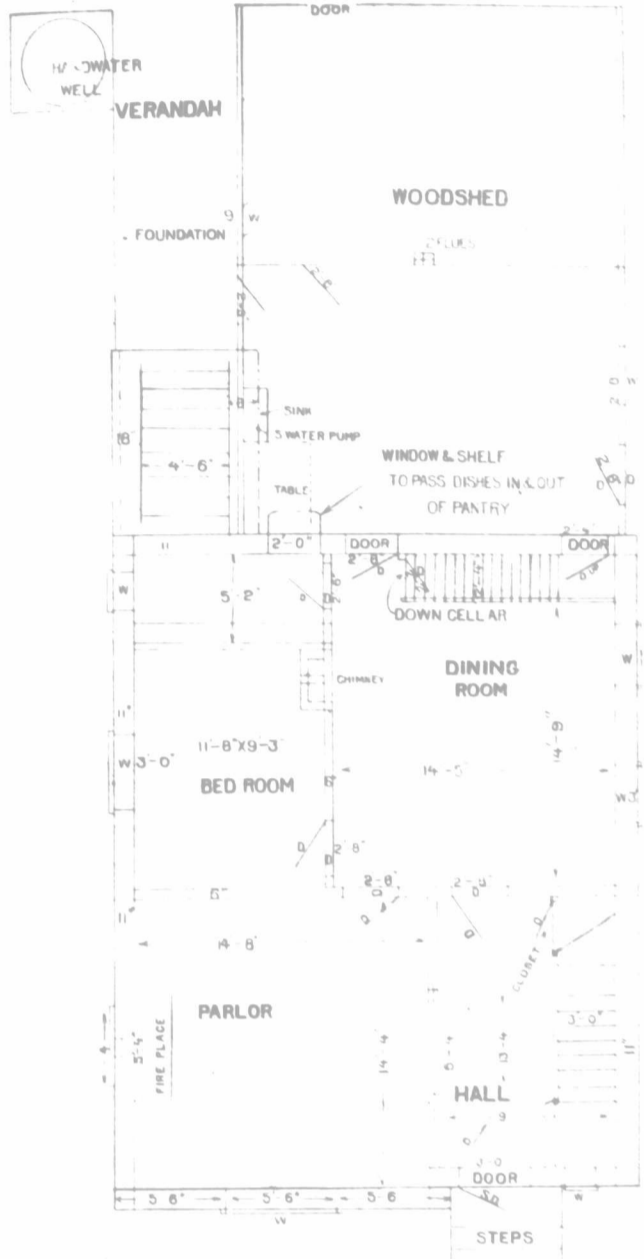
All indications go to show that the pure-bred dairy herds in Canada are among the healthiest of our live stock, which is saying a good deal, since there is no country in the world where the general healthfulness of live stock is greater than in this Dominion. Canada stands high in regard to the quality of its dairy cattle. Our Ayrshires at the World's Fair at Chicago, in 1893, were a revelation of an ideal class of dairy cattle to the people of the United States, sweeping the prize list clean, and they have greatly improved since that time, as the grand display at our leading exhibitions amply attests, the best of judgment having been employed in breeding them for vigor of constitution and capacity for work as well as for beauty of conformation, while no expense has been spared in importing the best of new blood from the native heath of the breed.

Many of the best of the great records of butter production by Jersey cows in America have been made by Canadian-bred cows and their offspring and descendants. At the Provincial Dairy Show in 1890, a Jersey cow, in an official test in public, and in strange surroundings, away from her stable companions, in two days' test gave 65.9 lbs. of milk, testing over 6 1/2 per cent. butter-fat, and the same cow has completed a year's work, making over 500 lbs. of butter within the 12 months, which, while grand work, is far below the butter record of the breed, which stands at over 1,000 lbs. in a year. The Holstein-Friesians, in public and official tests in Canada in the last few years, have demonstrated beyond dispute their value as dairy cows in large production of milk and butter, a cow of this breed, at the dairy show at London in 1890, having broken the record of public tests by producing on the show ground, under official supervision, 146.9 lbs. of milk in two days, testing on an average 4.61 per cent. butter-fat, or at the rate of 20 lbs. 8 ozs. butter in 7 days.

In grade dairy herds, where well-selected bulls of one of the dairy breeds have been persistently employed, remarkable results have been attained in increasing the milking capacity of herds. A striking instance of this is seen in the herd of Mr. Tillson, of Tilsonburg, Ont., whose cows, principally grade Holsteins, have been graded up in milk production by good breeding and feeding combined, until in 1890 his entire dairy of 55 cows averaged 11,472 lbs. of milk, testing 3 1/2 per cent., or equivalent to 475 lbs. per cow, while his best cow, a grade with one Holstein cross, gave 20,134 lbs. milk in 12 months and 15 days.

That there are many good dairy cows in the beef breeds is freely admitted, and they are generally the best breeders and most profitable of the breed, giving the calves a start in the first months of their lives that tells in vigor of constitution and quality of flesh when they grow older, but as a rule beef and milk production do not go together in the best degree of each, and the training of cows of the beef breeds has generally been that of short-milking terms, ending, as a rule, when the calves are eight or nine months, while the milking term of the dairy breeds is generally ten to eleven months, while some are milked from year to year without a break. The dairyman who has a useful herd of grade cows of one of the beef breeds, with good milking character (for the general-purpose cow is no myth), will do well to continue in the same line, selecting the sires he uses from deep-milking families, having due regard to dairy conformation and robust constitution, and the average farmer will be well suited with this class of dairy cattle, since he can raise the male calves as steers on the skim milk, and sell them at a profit as stockers, or, better still, finish them for export at 2 1/2 years old, when, as a rule, they will realize a good price. But the dairyman suitably located for that business, who has a herd of grade cows of one of the dairy breeds, having used bulls of a dairy breed, will make a mistake if he allows himself to be persuaded,

in violation of the recognized principles of breeding, to cross his cattle with bulls of the beef breeds, or of any other breed than the one he has been using, for the result will surely be a mongrel and nondescript class of stock, which cannot be depended upon to produce offspring of any uniform type or character. Having started with the use of bulls of any distinct breed, the true principle that leads to success is to



GROUND PLAN OF A. M. MUNRO'S FARMHOUSE.

continue to employ sires of the same breed, and to use one's best judgment and vigilance in securing good individual sires, with strong constitution, bred from a sire of same character, and a dam and family of known excellence of performance in the special line of work in hand. Breeders of all the different breeds of stock may do much to raise the standard of the stock of the country by castrating inferior males, or those bred from inferior dams, when young, or letting them go to the butcher as young things, when they have cost but little to raise, and will pay as well as at any other stage. By this means, and the weeding out of the unprofitable cows by feeding them off for the shambles, the general character of our stock may in a few years be immensely improved, to the advantage and profit of all concerned. In this connection, farmers will do well to study the principles of breeding, and by careful observation and experience, and the use of their own best judgment, carve out their own course, instead of lending a too willing ear to interested or irresponsible oracles.

There is no safer line of farm work than dairying for the average farmer and the up-to-date farmer. It requires but little capital, and the work can generally be done within the family. Expensive buildings or equipment are not necessary to success, as the plainest buildings may at little cost be made comfortable and kept clean. There is always a market, and generally a good market, for dairy products, and a little money from this source comes in regularly every month in the year, to enable the farmer to pay as he goes. The herd is annually increased, at small cost, by raising the heifer calves on skim milk, to take the place of discarded or worn-out cows, while, worked in connection with pork production, the combination is in these days in the nature of a bonanza.

The First Number More Than Paid the Bill.

To the Editor FARMER'S ADVOCATE:

SIR, One of my neighbors, Mr. Charles Krenge, who is a subscriber to the *Advocate* for the first time this year, informs me that the first number saved him more than the price of the whole year's subscription. He had a fine pure-bred Yorkshire sow that was killing her young pigs, and in reading the *Advocate* he saw the information he was just in need of: he took the advice and saved his young pigs. To say he is pleased with it is putting it very mildly.

SAM'L MILLER.

Residence of A. M. Munro, Glanworth, Ont.

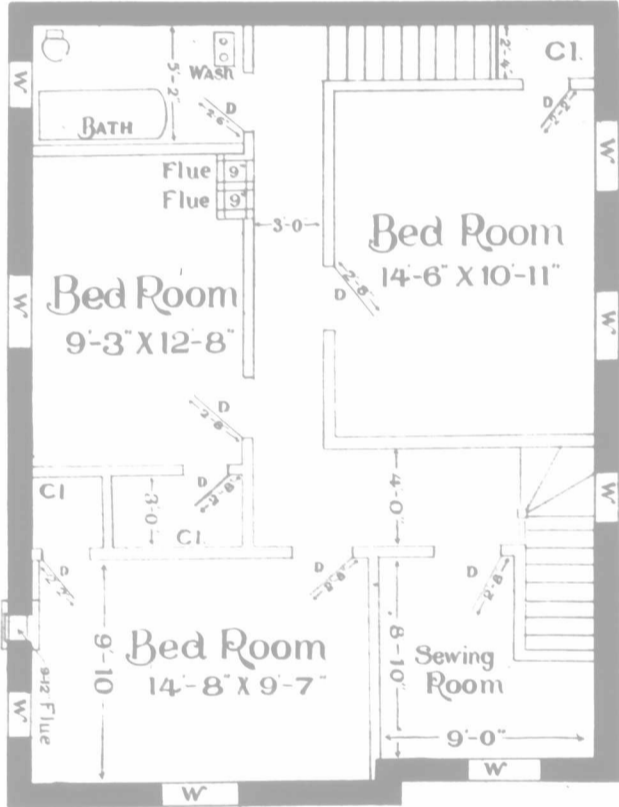
This house, built in the summer of 1900, has a nine inch brick wall, rendered, strapped and plastered, and an 18 inch stone wall in the cellar. The stone wall is continued around the outside cellar entrance. The stone is common field stone. The first floor is finished in black ash. The main house has a slate roof and the kitchen has a galvanized metallic roof. The attic is floored. Plate glass is in parlor window and stained glass in stair window and transom over front door. Front stair is oak. Chimneys are capped with freestone. A double-flue chimney in the inside of house is expensive, but I thereby get a better draft and prevent the outside wall from being blackened with smoke, as is frequently seen. One of the flues can be used for ventilation. Between the floor and ceiling the first story is nine feet six inches, the second is eight feet eight inches, and the cellar is six feet six inches.

A different division of the second story could be had, whereby the sewing room over front hall could be made into a bedroom, by having the hall upstairs at the top of front stairs four feet further to the back. You could thus make the sewing room four feet longer and wider if desired. But this would make the west double bedroom smaller.

The workmen boarded themselves, and counting everything, the main house cost, without plumbing and heating, \$1,800, and the kitchen and woodshed \$300. Everything is of good quality.

Air Space in Byres.

American and Canadian newspapers announce a return to sanity on the part of a good many people across the Atlantic on the subject of the tuberculin test, and county councils on this side are also becoming more reasonable in connection with the air-space question. At a recent meeting, Colonel Maude mentioned that in one district in Yorkshire



UP-STAIRS PLAN OF A. M. MUNRO'S FARMHOUSE.

a demand was made that each cow in a country byre should have 1,800 cubic feet space, while in another district the demand was for 900 cubic feet. The folly of these demands is seen in the fact that all parties have united on 600 cubic feet per animal—a reasonable working compromise, and one which, in most cases, is capable of being realized. In a fine byre which the Duke of Argyll is erecting for Mr. Howie on Rosneath Farm, 600 cubic feet of air space is being aimed at, and the whole fittings and roofing, with ventilation, are so arranged that it is expected the byre will be both warm and well ventilated. Mr. Roy's byre at Baillieston, erected in accordance with ideas suggested by Mr. John Findlay, is fitted and planned in the same way, and is understood to be a great success. *Scottish Farmer.*

To Remove Warts and Lice from Cattle.

To the Editor FARMER'S ADVOCATE:

SIR, Let me give you our plan of taking warts off stock: Mix sulphur and lard (equal quantities) and apply twice weekly for three or four weeks, and to your surprise the warts will disappear, leaving no scars, nor does it hurt the animal. It is far ahead of a dull pair of scissors.

Lice again. Lice on cattle can be easily taken off by dusting a little ashes on the backs of the cattle once or twice during winter. If you will notice, these lice breathe, not through their heads, but through holes along their sides, and the dust of the ashes simply clogs up these pores, or breathing tubes, and they die at once. Why do we seldom see lice on cattle in summer? Simply because they will get in some ash pile or dust and throw it over their backs and kill the lice, if there are any.

I wait anxiously for every issue of your paper. Father has taken it for over thirty years, and could not do without it.

ARTHUR KELLY.

Horse Training and Educating.

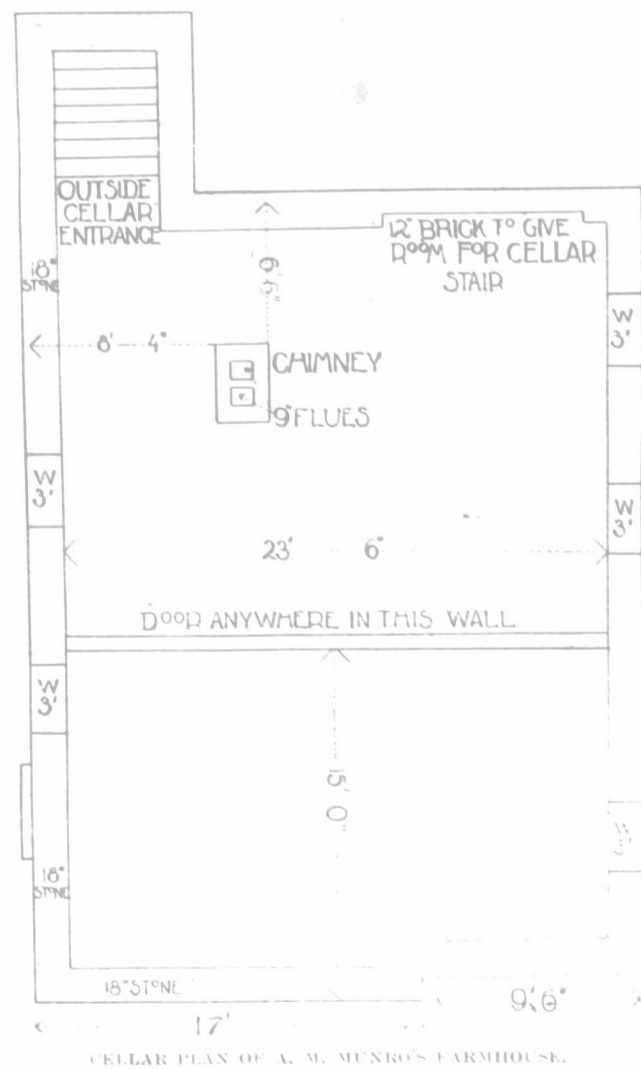
To the Editor FARMER'S ADVOCATE:

SIR, I read with interest the short articles on "Colt Breaking," "Breaking Vicious Colts," etc. We farmers, as a rule, need all the good advice we can get on this very important question. Your footnote, regarding the breaking of vicious colts, was in good keeping. The articles referred to are found in February 5th number. May I ask a question here? Would it be going too far to include the whip and the hard word "breaking," together with the "comanche bridle" and the "double half-hitch," referred to in footnote. I consider that all of these articles are useful, but a word of caution is good to the inexperienced, and others as well: The use and abuse of these contrivances will bring about very different results.

In the first place, the colt has a capacity for affection, we must all admit. Then why not try to cultivate it in him. He can learn who his friends are very quickly. He is intelligent. The farmer who is a true friend to the horse must not forget to put up the bars or the colts will be after him. If he wants a colt, he does not need to call in all his neighbors to help him catch one. The animal will follow him to the barn and may ask for a taste of oats, as usual, and the farmer may load all the harness onto him that he can find. Now, I contend that such a colt is not necessarily "broken" to this business, and will not need to be, either.

The colts that require "breaking" are the ones that are neglected and abused. They are strangers to man's kindness. They are rushed to the front by brute force in too short notice. No time to make friends; not even time to get acquainted with the new surroundings. If he shows fight, then throw him down, hold him there, and then whip him up. Show him that he is weak. Whip him into the collar and expect him to pull a good big load tomorrow. To-morrow comes, he is loaded, driven off, and comes back with sore shoulders, sore limbs, and broken spirits. He is discouraged. How many horses are ruined before they reach maturity! One reason for the breaking down of these animals is this: Many colts are tied by the neck all winter. Young and soft, they are taken out and forced into heavy work in the spring, before their bones and muscles are able to stand it, ruining their constitution and their cheerful disposition, and destroying their market value also. Would it be a waste of time to give the colt 15 minutes per day, during the cold weather, talking, brushing, feeding from the hand, carefully harnessing and unharnessing him, leading him to the pole, rubbing it on his side, etc. There are lots of little things that we may do without annoying the colt at all, and at the same time the colt is being educated by these very simple movements. We may just call them the A B C's, and not giving the big, hard word "breaking" in his first lessons.

SANDY COLTS.



CELLAR PLAN OF A. M. MUNRO'S FARMHOUSE.

Duty Off Seed Wheat.

Wheat for seed purposes will be admitted free of duty into Manitoba and the Northwest Territories from March 25th to June 1st, the importer and the farmer buying to give declarations that the grain is to be used for seed only.

Proposed New School of Agriculture.

[FROM OUR ONTARIO AND EASTERN EDITION.]

Mr. J. H. Smith, M. A., Principal of the Ridgeway Collegiate Institute, who has had a lengthy and successful experience as an educator, advises us that he proposes organizing a farmers' school, to serve specially the needs of the Western peninsula of Ontario. It is to be opened in Ridgeway in October next, and the term will extend till March. Any one 16 years old or over, with a good public school education and a practical knowledge of farm operations, will be eligible for admission. There is no doubt whatever, as has often been pointed out in the FARMER'S ADVOCATE, that the public school course is weak in regard to subjects calculated to be of real service to the young man whose occupation is to be farming. In fact, the youth generally, including those living in cities and towns, would be greatly advantaged in their educational equipment for the work of life, were more rational methods pursued and greater attention paid to the natural sciences, thus training the observation and practical judgment of the scholar. Principal Smith has undertaken this plan at the solicitation of a number of the most progressive farmers of that part of the country, and towards which he has received much encouragement when speaking at Farmers' Institute meetings. The recognized need for more general agricultural education is apparent. In the light of present-day conditions, no one can seriously contend that such is not the case. In mapping out the course for the proposed school, everything that has not a direct bearing on some department of farming has been left out. The laboratory will be amply equipped to illustrate the principles and laws of the various sciences. The course of study is to include the following:

CORRESPONDENCE.

Special attention given to good, plain, rapid penmanship; correct spelling, and the use of good English.

MATHEMATICS.

Arithmetic and mensuration; rapidity and accuracy in calculation; measurement of lumber, land, pits, bins, silos, mows, stacks, etc.; cost of feed and feeding; cost of tilling, draining, building and fencing; interest and discount; profit and loss in different farm operations.

BOOKKEEPING.

A complete system of double entry, specially adapted for the farm; use of stock register and field books; business forms, such as receipts, notes, drafts, cheques; contracts, commercial law.

PHYSICS.

The constitution of matter, measurements, weighing; farm mechanics, or the principles of farm machinery; the physics of solids, liquids and gases; heat and its effects; physical analysis of the soil; soil moisture and methods of controlling it; conservation and transformation of energy; the principles of electricity sufficient to illustrate its application on the farm. This course consists of class work, lectures and experiments.

CHEMISTRY.

The work of this course is general, embracing class work, lectures and experiments to illustrate the main facts, principles and laws of chemistry in their application to farm operations.

GEOLOGY.

Ten lectures giving a general outline of the various systems and formation; occurrence of useful minerals in Canada; soil and soil formation.

BOTANY.

Observation and description of plants, chiefly weeds; pollination, fertilization, germination, growth, dispersal of seeds; detection of seeds in samples of grains; the character of rust, smut and other injurious fungi, with their remedies. Special attention given to a few of the more important families, such as grasses, clovers, etc.

ZOOLOGY.

The chief divisions of the animal kingdom, with special attention to those forms which are either a benefit or an injury to the farmer, such as insects, birds, domestic animals; anatomy and physiology.

AGRICULTURE.

This course embraces a wide range of topics, a few of which are given below: Physical properties and classification of soils, tillage operations, manures, relation of certain plants to fertility, rotation of crops, drainage; breeds of cattle, horses, sheep and swine, with valuable points of each; poultry, different breeds, houses, breeding, feeding, etc.

DRAWING.

Plans and elevations of houses, barns, poultry houses, silos, etc.; objects of utility.

GENERAL.

A few lectures on general topics, such as marketing, advertising, transportation, wealth, labor, land, capital, joint stock companies, money and exchange, co-operation, forestry, etc.

The foregoing course was unanimously endorsed by the East Kent Farmers' Institute, March 1st, 1901, and several young men have already signified their intention of attending the school as soon as it is opened.

An Effective Hawk Trap.

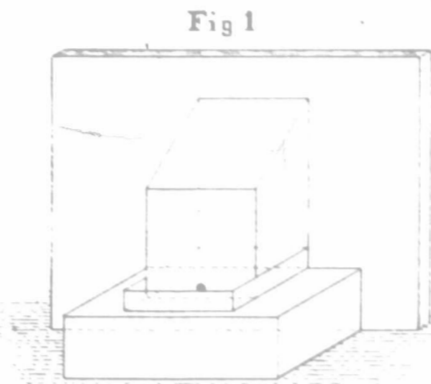
The poultry flock that is near a large grove or swamp, and not kept enclosed in yards or pens is, generally reduced during the summer by hawks, crows, etc. It is not an easy matter to capture these fellows with a shotgun, because they come around and secure their booty and get away with it in a very sly manner. A good means of catching them is to elevate a pole of considerable length in a field or near a fence, away from trees and not far from the buildings. This will form an attractive alighting point. After a few weeks the visiting hawks and crows that come around looking for spring chickens would consider this their reserved view point. On this pole should now be placed a common steel rat-trap, securely attached to the pole. When Mr. Hawk or Crow alights he will set off the trap and find himself captured. To leave him the way out is needless and unnecessary. A short rope, attached to his point, be set then be taken down to the ground to set. One or two traps, well baited, will catch a great many of the birds. The birds, when caught, should be kept in a living cage, or a box, until they can be taken to a living

Poultry-House Furnishings.

To the Editor FARMER'S ADVOCATE:

SIR,—I send you sketches of some convenient poultry utensils.

Fig. 1 represents an automatic drinking-fountain, which will be found useful for chickens of any age or size. This fountain is composed of two parts, which we will designate as tank and pan. It is represented in sketch as sitting on a block of wood, close to a board fence or partition of some kind, ready for service. The dimensions of tank are 6 by 5 inches, and 12 inches high in rear, with sloping top of 45 degrees, or one-half pitch. The pan is 6 by 6 inches, and 1 inch high. The black dot in front of tank represents a small hole, $\frac{1}{2}$ inch in diameter, the top of which should not exceed three-quarters of an inch from lower edge of tank, thus allowing the same depth of water in that part of



pan which extends out from tank in front. To fill the tank it is necessary to invert it, after which place the cover or pan on; then, holding the pan in place with one hand, and lifting the tank with the other hand, giving all a gentle upward movement, and at the same time turning the fountain over, carefully place it in position ready for use. A little practice will enable one to perform this movement without any perceptible waste. A fountain of the above size will hold a little over a gallon, and, if constructed from galvanized iron, may be made complete for about 25 cents, if a number were ordered.

Fig. 2 represents a feeding dish for half-grown chicks. I have two sizes. Small ones made from old tin pie dishes, and the larger (as shown) from worn-out milk pans, such as we sometimes find thrown over the garden wall and considered worthless. In constructing these little feed dishes, we simply procure a block of wood for each dish; cut them down to the proper diameter at the base to fit the dish in view. The height of the block or cone is of no great importance, say about 12 inches for a milk pan and a little less for a pie plate. The ring at top of cone (as shown) represents a wire handle. Fasten these dishes to cone with screws, so that they may be easily taken apart if required. Those who try them will find in them a very serviceable little vessel for feeding soft feed to growing chicks.

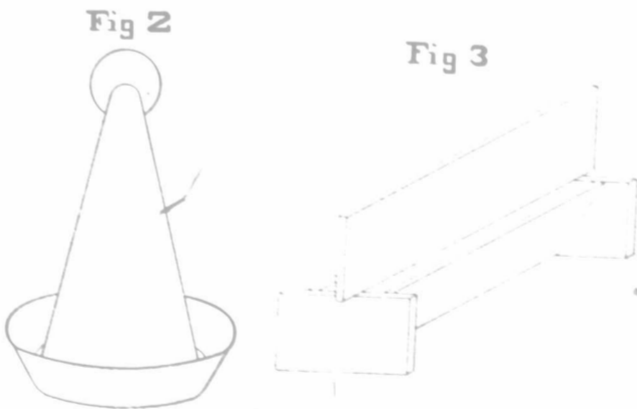


Fig. 3 represents an ordinary V-shaped wooden trough, with a board about 8 inches wide extending from end to end of same, as shown. Its purpose is merely to keep the fowl from getting into the trough when feeding, and it does this admirably. The board is held in position by two dowel-pins, one at each end of trough. These pins are made from 1-inch wire nails with heads off. The holes, of proper size, are first bored in each end of trough, then holes in the board to correspond, and pins put in to stay. After feeding, the board is removed and placed against a partition, out of the way, and trough turned up to keep dirt from entering the pin holes.

A. T. GILBERT.

Feeding Value of Spelt.

I have analyzed the spelt and find it to have about the same composition as barley and oats. It is not as rich in protein as ordinary wheat, but, nevertheless, has a high feeding value. Like the 'goose' wheat, it should be coarsely ground when fed, and mixed with other grains. It is not of value for bread-making purposes because of the peculiar character of its gluten; it is, however, a valuable animal food, and can be fed to advantage, taking the place of expensive mill products. Composition of spelt: Water, 10.02; ash, 3.25; fat, 2.25; protein, 11.25; fiber, 9.22. The protein contents of this grain, together with its productiveness and hardness, seems to make this a desirable dairy feed. *Snyder, St. Anthony's Park, Minn.*

Breeding and Care of Geese.

With proper management, there is no branch of poultry-keeping that pays better than the propagation of geese. While a person may be successful in the management of other fowls, when they undertake goose culture they are wholly at sea, and failure is the result. There should be almost as much difference in food, care and treatment given geese, hens and turkeys as between hogs, cattle and sheep. Unlike the hen or turkey, geese are not so much grain-eaters, but are grazers more like sheep, and an oversupply of grain will not answer. Having more the nature of sheep as grazers, it follows that in order to grow them profitably they must have free range and an abundance of grass. With this provided, they can be grown at small cost, and will return a larger cash dividend than any other class of poultry. They must never be confined to buildings, as a constant supply of pure cold fresh air is an absolute requirement. They can be yarded if kept constantly supplied with fresh green stuff, but even then they do not do so well as when on free grass range, and the cost of maintenance is largely increased. Should they be yarded, more than one yard must be provided, as the soil very soon becomes foul, and if confined to it disease is liable to follow. It is best to supply them with a swimming pool, as it gives them exercise and the eggs are generally more fertile, but it is by no means an absolute necessity. They should, however, always have a constant supply of clean water for drink. The goose is a long-lived bird, and is slow in acquiring full development. It therefore follows that the best results are obtained by breeding fowls of not less than two years old. They do not mate readily, and for that reason it is well to place the sexes together from six to eight months before breeding time in order that they may become well acquainted. After having mated, a strong attachment grows between the sexes, and instances are known when, after the female has been removed for any cause, the gander has refused to mate with another, and in some cases died, apparently from grief. As a rule, three or four females should be allowed to one male. We frequently find that when the eggs have failed to hatch, the goslings are dead in the shell. This usually results from mating immature fowls. By selecting birds as breeders two years old or more, with plenty of grass range, there is no reason why any one can not succeed in raising geese.

Raising Chicks the Natural Way.

Raising chicks with hens as incubators and mothers is the most common and popular method. Nothing proves this so thoroughly as the success of the hen that steals "her nest." She lays her clutch of eggs and then becomes possessed of the brooding instinct.

Early in the morning she leaves her nest and seeks food, hunting through the grass, all wet with dew, and returning with wet feathers, bringing the necessary moisture to her eggs, and during her absence giving them the necessary "cooling off" and airing which incubator men (whose best ideas are all learned from the mother hen) insist upon.

The best possible management of sitting hens is to follow the natural inclination. When possible, let them sit in nests of their own choosing, and after putting in the eggs, leave them severely alone. Last spring I set two hens at the same time, one a Plymouth Rock, and the other a common white hen. The Plymouth Rock would come out into the yard to eat every time I fed the rest of the flock; but as the old white hen would not get off her nest, I sometimes took a handful of grain and let her eat out of my hand. I soon found that she got out of the yard early in the morning and picked up what she needed, and went back to her nest with her wet plumage. She frequently staid off so long I thought her eggs would never hatch. She had thirteen eggs, and she brought out thirteen fine, healthy chicks; while the Plymouth Rock only had nine chicks out of her thirteen eggs.

From the time the hen is set, the battle against lice should be begun. Dust the nest thoroughly with insect powder, and as soon as the hen and brood are removed from the nest, dust the hen down to the skin as well. In hovering her chicks, she will transfer the powder to them, and thus kill any lice which may have taken hold on them. Provide the mother hen and brood with a good-sized coop, one which the chicks may occupy long after they are weaned. I use a box about three feet square, slatted in front to allow the chicks free passage, and tightly roofed. Clean the floor every few days, and sprinkle with clean sand. Keep the inside thoroughly whitewashed. With such a coop, and constant watching, the brood should do well. Especial care must be exercised in keeping the chicks dry until they are well feathered out. Young chicks which are allowed to range through the wet, dewy grass are subject to gapes. Have the front of the coop fitted with a board which may be used to confine the chicks to the dry coop during rainy periods and until the grass is dry in the morning. As soon as the chicks are well feathered, they are safe from dampness, and may be allowed freedom at all times.

For the first week, the feed should be warm, easily digested, and slightly stimulating. Stale bread soaked in milk and slightly seasoned with cayenne pepper is good. Always squeeze the feed as dry as possible. Sloppy food is injurious. Rolled oats are excellent for young chicks. Never feed corn meal unless it is thoroughly scalded. Corn

meal wet in cold water swells in the crop and causes indigestion. The chicks are soon able to eat whole wheat, which is by far the best grain for them. A little common "Venetian red," which may be purchased at any drug or print store, may be added to the drinking water or mixed with the soft food with good results. It is cheap, and an excellent tonic for young and old fowls. The more good grass range the chicks enjoy, the better for their growth and health. When so provided, they pick up lots of animal food in the form of insects; but when confined, chopped meat should be provided. A variety of good, wholesome food should be furnished at all times. The exercise of common sense is necessary to success with fowls. Lice and gapes are the most destructive enemies of young chicks. Chicks raised on high land are less subject to gapes than those raised on low, wet lands.

Study nature in your poultry yards. Nature has her laws of health and growth; they must be learned and respected.

FARMER'S WIFE.

London Hackney Show.

The 17th annual show of the above-named society opened on March 5th. The entries were twenty in excess of last year, and comprised of Hackneys, 163 stallions, 82 mares, 59 geldings, and 31 harness horses. The average merit was well up to the standard of former years, and there can be no question of the uniform soundness of the breed as a whole. The result of veterinary examinations at the Hackney Show from 1890 to 1900, inclusive, reveals that 3,268 stallions and mares have been thoroughly examined by the four veterinary inspectors appointed annually, and of this number, 3,111 have been passed as sound.

Stallions 4 years old and over, exceeding 15 hands 2 inches, were the strongest class of this section of the show, no fewer than 52 entries being made, as against but 21 last year. There was a wonderfully good lot of horses included in this large class, and as an evidence of the quality of the class, we may mention that in addition to awarding four prizes and the *v. u.*, five others were *h. c.* and three *c.* There was neither doubt nor hesitation as to the destination of the first prize, for last year's champion, Mr. H. Livesey's McKinley, came out in grand form, and was, without much question, put to the front. Next him came Rosellan, now owned by Mr. J. Rowell, but bred by Mr. F. W. Buttle, and sired by Rosador. Third fell to Mr. Tennant's Revival, by Ganymede, whose height is recorded as 1 inch over 16 hands.

Stallions 4 years old and upwards, over 15 hands, not exceeding 15 hands 2 inches, made 26 entries, an exceptionally good class, no less than ten of them being included in the award list. Royal Danegelt, a champion in 1898 and *v. u.* for this honor last year, again went easily to the top of his class, his form and movement being as near perfection as can be, whilst his increased age has given him more development and substance, that has materially added to his good looks. Laughton Masher, by Garton Duke of Connaught, came in for second honors, a real typical Hackney, with good front and hock action. He occupies the same place as last year. Acid Drop, who comes third, was in that position last year. Rosador, first in his class last year, when a year younger, has, in this year's contest, to be content with *v. u.*

Three-year-old stallions, not exceeding 15.1 hands, were led by Knowle Stratford, a splendid bay son of Garton Duke of Connaught, shown by Mrs. Edmondson. Ryedale Sensation, from Mr. B. Wilson's stud, was a good second, the third winner being Atwick Junior, by Chocolate Junior. This class was followed by another, for the same age, exceeding 15.1 hands, in which there were 23 entries. The winner, a grand one, Bonny Danegelt, by Royal Danegelt, came from Sir Walter Gilbey's stud, and he is a worthy son of a noted sire. Close on his heels, however, came a real good colt, the property of F. W. Buttle, by Rosador, Garton Sidar by name.

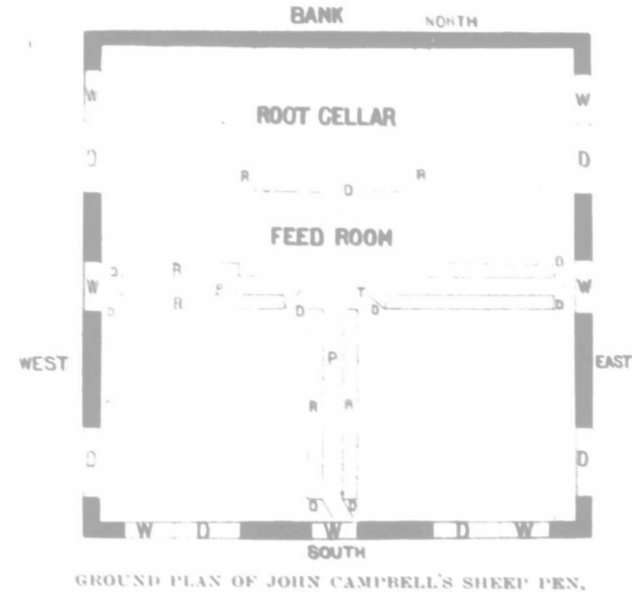
In the 2-year-old class, Fitz Rose, by Sir Walter Gilbey's Royal Danegelt, won the first prize easily for Mr. Wrench: a grand colt, with capital movement. Another of Royal Danegelt's sons came in for second honors: this time exhibited by Sir Walter himself.

The Championships.—The champion cup for best stallion went to Mr. Livesey's McKinley, and the reserve number to Sir Walter Gilbey's Royal Danegelt. The championship for younger stallions went to Sir Walter Gilbey's Bonny Danegelt, and reserve to Mr. Buttle's Garton Sidar. The champion cup for best mare went to Mr. C. E. Galbraith's (Dumfries) Rosadora, last year's champion, by Rosador. She is 5 years old, 15 hands 3 inches high, well proportioned, having brilliant action, and won first in the class for mares 5 years or over and over 15 hands 2 inches. Her stable mate, the first-prize 3-year-old mare, Rosarene, was the reserve number. Queen of the West, by Garton Duke of Connaught, won first in her class for 3-year-old mares over 15 hands and not exceeding 15 hands 2 inches. She is owned by Mr. Galbraith, who also secured the junior female championship with the first-prize 3-year-old filly, Rosarene, by Rosador. These female championship winnings stand as a notable triumph for the Scottish exhibitors at this year's show.

Sheep Barn Plan.

To the Editor FARMER'S ADVOCATE:

SIR.—As requested, I have forwarded you a plan of our sheep barn. The sheep are housed in a stone basement, 50x50 feet, 9 feet high. It is well plastered inside, and special attention is given to lighting and ventilation. Besides the windows shown in plan, which are double sash, sliding back and forth, there is one above each door, hung on hinges and operated with weights, rope and pulley, so that any desired amount of ventilation can be given, whatever direction the wind blows from, without creating a draft. We can carry 40 to 50 breeding ewes, with their lambs, and as many more yearling rams and ewes, in this barn. For 100 breeding ewes, considerable more room would be required during and after lambing time. The feed is stored in barn, overhead, the drive floor of which is reached by a bank, made against north side of root-cellar wall, affording



GROUND PLAN OF JOHN CAMPBELL'S SHEEP PEN.

protection against frost. As the feed is dropped into feed-room, convenient to feeding passages, labor is saved. The root cutter, pulper, grain and bran boxes, with water tap, are all located in feed-room. The feeding racks divide the barn into four divisions, and they are movable, with the doors wide enough to admit a team, so that the manure can be loaded directly for the fields. There is a yard for each of the four pens, with high, dog-proof, tight board fence, to insure sound sleep at night, not so much for the sheep as the shepherd. The passageways between racks provide for feeding without going among the sheep, thereby saving waste. Having used the barn for nine years, we are well satisfied with the arrangements and can suggest nothing different in the way of improvement.

JOHN CAMPBELL.

Queens.

BY MORLEY P'KTIT.

"The practical man, contemplating the advisability of entering upon any line of work or business, carefully studies the situation from every point of view, and, when fully convinced of its desirability as a lucrative venture, complies most assiduously with all the conditions necessary to the complete success of the undertaking." So said Mr. M. B. Holmes in a paper on "Queens," read before the Ontario Beekeepers' convention at Niagara Falls last December.

"The splendid hives and foundations of the day are certainly a boon which every true beekeeper appreciates: but the great center on which success most largely depends—that 'center' at which no 'master' beekeeper can err—is in securing 'the good queen' for every colony. . . . I mean the queen that will do the largest amount of work in a given time."

Observation teaches that colonies vary greatly in their honey-gathering qualities, some yielding scarcely any surplus, and others very much exceeding the average. "Take, for instance, an apiary of one hundred colonies, the average annual yield of which is, say, eighty pounds of extracted honey per colony. Now, let us suppose that twenty-five of the one hundred colonies are poor, fifty average, and twenty-five strong, and then try and solve the problem as to how the average yield of eighty pounds per colony is obtained. The poor colonies will gather about half as much surplus honey as the fifty of average strength, or, say forty pounds each; then, in order to get the average of eighty pounds per colony for the whole apiary, the twenty-five strong colonies must gather one hundred and twenty pounds of surplus honey each."

If these one hundred colonies have all received the same treatment, the difference in their work must depend on the quantity and quality of the workers in each. These again depend directly and solely on the laying queens, and "the mere act of tolerating the twenty-five poor queens has incurred an expense of one thousand pounds of honey, when compared with the average colonies, and three thousand pounds short when compared with the strong colonies, either of the items being sufficient to pay for all the good queens required and leave a considerable balance to the good."

"You may change the figures as you desire, and

the result will always show that the poor queens are heavy debtors, with no prospect of paying, and should under no circumstances be tolerated. Keep the best, and only the best; the very best are the cheapest in the end, and an economy that prohibits the employing of the best queens is certainly a false economy."

In what does a good queen's excellence consist? In being capable of becoming the mother of a strong and useful colony of workers, for it is by her bees that we know her, and if we have a good colony of bees, we know they must have a good queen. The question of the good queen, then, resolves itself into the question of the good colony. Now, the best colonies are the ones that store the most honey in the supers at all stages of the season. Queens of colonies which come below the average should be replaced by others reared from the best queen in the yard or procured from a reliable queen-breeder. It is as expedient to weed out poor queens in the apiary as poor cows in the dairy.

In order to be good honey-producers, the bees must be (a) *industrious*—two colonies apparently equal in strength do not always gather the same amount of honey; (b) *numerous* in the hive at the right time and of the right age—much depends on having the hive full of bees that are old enough to work as soon as the honey comes; (c) *long-lived*—a short-lived bee requires as much time and food to mature as a more vigorous one, but has its working days cut short; (d) *long-tongued*—the depth of corolla tube in red clover ordinarily prevents honeybees reaching the nectar contained therein, and it should be our aim to develop a strain of bees having tongues long enough to overcome this difficulty. Mr. J. M. Rankin, of the Michigan Experiment Station, reports that they have a strain of Italian bees whose tongues are nearly two-fifths longer than those of black bees and more than one-fifth longer than those of the average Italians. Is it not possible—nay, is it not more than probable—in view of the wonderful success already attained in developing the most desirable qualities in plants and animals, that by always selecting queens and drones from the longest-tongued bees a strain of red-clover bees may be secured, and tons of the choicest honey, now wasted, brought into our hives? Such bees would be a boon to the farmer who is at present struggling to grow red clover seed by the sole aid of bumblebees.

Other characteristics of good bees, space does not permit to mention. Thanks are due the *Canadian Bee Journal* for the stenographic report of the convention.

Seed Selecting and Testing.

SIR.—Too little attention is given to selecting and testing seeds used for field crops. If we know that seed oats, barley or wheat are of last season's growth, and that they have not been damaged from wet, it may not be necessary for us to worry about their vitality; that can be judged largely from their appearance.

When preparing seed for cereal crops, it is always advisable to use grain that has been grown under conditions favorable to a growth most suitable for producing a maximum yield of grain of the best quality. It cannot be too highly recommended that each spring an acre or so of the earliest and best land be specially prepared and used for the purpose of growing seed grain. Fully as much attention should be given to selecting the seed for such plots as is given to selecting breeding animals for a stud, herd or flock.

Commencing with the seed, careful experiments have shown that the large plump grain selected from ordinary seed gives an increase in yield over the ordinary seed sufficient to add a remunerative profit from the crop, when the crop from the poorer seed would only pay for the cost of production. Again, plants from large, well-developed seeds are more vigorous, and will continue to be more thrifty, from germination until the plant becomes mature, than plants from small or shrunken grain. Selection should also be made in the field. It is from these perfectly-developed plants that the large, plump seed should be selected. From one day's work for three persons among good grain, plenty of large heads can be picked to produce enough good plump seed to sow one acre. From that seed-grain plot large heads should be selected to sow the plot for succeeding year, and the grain harvested from the plot should be used as seed grain for the general farm crop.

The idea that grain after having been grown in one locality for a number of years tends to "run out" is growing less common. It is now more generally believed that the decrease in the vigor and productiveness of grain is largely due to lack of attention in seed selection. If a farmer has been growing a variety of oats, which he finds to be well suited to his soil, for five or six years, without giving any attention to keeping up its productiveness, it can hardly be disputed that it is to his advantage to get fresh seed of a good productive strain of the same variety. Nearly as much attention is now being given to productive strains of old standard varieties as is given to new varieties, and when a good, practicable, systematic selection of seed becomes more general and the results carefully observed, the craze after a change of seed will die out.

Such agricultural education movements as the "Macdonald Seed Grain Competition" are having a good effect, not only with the boys who live on farms, but with the farmers themselves. Each one of those quarter-acre seed plots which are being operated by the competitors in that competition

serves as an illustration to many who would otherwise have no opportunity to observe the effects of such a systematic selection when applied to wheat and oats. Farmers who encourage their boys in this work are doing much toward leading them out and helping them to take a deeper interest in the whys and wherefores of agricultural operations in general.

The vitality of grass, clover and root seeds should be tested before they are sown. We have limited means of finding out when or where our root seeds, and in most cases our clover and grass seeds, were grown, and it is a regrettable fact that we are at the mercy of the seedsmen so far as the vitality of such seeds is concerned. It is noticeable that seed dealers take care to insert inconspicuously on their invoices or elsewhere, that they will not be held responsible for the purity or vitality of the seed supplied. If our legislative machinery were brought to bear, and unscrupulous seed dealers were asked to substitute for their provision—which is a safeguard to themselves—a guarantee, which would be a safeguard to the purchaser, as to the purity and vitality of the seed supplied, the percentage of loss sustained with such crops as mangels and carrots, and, to a less degree, with clovers and grasses, would be materially decreased.

In order to be assured that the seed which is to be sown this spring will readily germinate, arrangements for thoroughly testing it should be made. It is always well to carry on such tests in duplicate and under different conditions of moisture and temperature. One hundred seeds may be tested in a pot or box of soil under the most favorable conditions, while another hundred should be tested under field conditions such as are common at seeding time. If less than eighty or ninety per cent. of the seeds germinate, and the growth from those is weak, it will be wise to discard it as unfit for use and endeavor to get seed that will be sure to produce a strong growth of good uniform plants.

RURAL SKETCHER.

Sugar Beets in Michigan.

[Written for the FARMER'S ADVOCATE, by J. J. Ferguson, Instructor in Animal Husbandry, State College, Mich.; a graduate of the Agricultural College, Guelph.]

I have noted with much interest the progress of the movement towards the establishment of the beet-sugar industry in Canada. During the last few years, probably greater strides have been made along this line in Michigan than in any other similar area in the world. Since our State College has been very intimately in touch with the work since its inception, I gladly comply with the request for a few notes on the business in general.

There has been much both of success and failure in the experience of those who have raised beets for the factory in this State. Everyone cannot make a success the first season; soil, season and cultivation must all be favorable; on the most suitable soils, and with the best of cultivation, in many cases the crop lost money to the growers a year ago, owing to the extremely light rainfall.

Last season there were in operation in the State no less than ten factories, with a total production estimated at fifty million pounds of sugar. The first factory was built in 1888 at Bay City, by the Michigan Sugar Co., at a cost of \$350,000. The capacity of this factory has since been largely increased. The cost of the factories since built has been about half a million dollars each. The capacity of a factory is usually rated at a ton of beets for every thousand dollars of capital, so that most of the factories can handle about 500 tons of beets per day. But one factory has been forced to make an assignment, that at Benton Harbor; this was due, not to lack of profit in the business, but to the fact that it was built in the heart of one of the finest fruit sections on the continent, where land sells for \$150 per acre. There was more money in fruit and vegetables for the Chicago market, so the farmers declined to grow beets.

The period during which the factories are in actual operation, technically known as the *campaign*, is comparatively short, averaging usually one hundred days, and commencing about Oct. 15th, or whenever the beets are ripe, depending on the season. The product of the Michigan factories, we understand, is not handled by the National Sugar Trust, but goes direct to the wholesalers through the medium of a sales board. The quality of the product is beyond question, samples received at the College chemical laboratory showing only about one one-hundredth per cent. impurity. The process of manufacture is an intricate chemical one, entirely beyond the province of this article.

The phase of this question in which the average reader will take most interest is the matter of the proper soil and culture essential to a good crop of beets. We shall give briefly a few of the facts arrived at up to the present.

THE SOIL.

While it is true that beets will give large returns on a variety of soils in favorable seasons, the percentage of success in the most important factors, varies in direct relation to the different soils. The ideal soil is a heavy loam, and next in order loam and sandy loam. Experiments conducted on the humus soils of Michigan have shown that while the yield of beets is not so high as that of the loam soils, the percentage of sugar is much higher, and what is most important, the percentage of sugar in the beets grown is higher, when the soil is a heavy loam, than when it is a sandy loam. The soil should be deep, and should be free from the

great difficulty met by the Illinois Sugar Co.; the soils of that State are unusually rich in humus; the average of all beets handled at their factory one season was only 10.2% of sugar. This season the beets handled by one Michigan factory averaged about 4% higher than this, showing a good margin for both the producer and manufacturer.

PREPARATION OF THE SOIL.

The great essential is to secure an even seed-bed in fine tilth. Fall plowing has given best results, followed by thorough surface-working so soon as the land becomes loose and friable in the spring. A clay loam underlain by a hard clay subsoil is greatly improved by the use of the subsoiler, since the fine rootlets must go down deep for moisture in dry weather. If forced to feed near the surface, rough beets with many scraggy rootlets will be the result.

AS TO VARIETIES.

It is never safe to speak with any degree of assurance on this point, when we remember probable soil and climatic differences between sections of country more or less remote. Vilmorin Improved, which has given such good results in co-operative tests in Ontario, has been, all things considered, the most satisfactory cropper in this State, with regard to yield and sugar content. The following table gives the results with the three leading varieties tested season of 1899, which was a very unfavorable one. Much better results might ordinarily be expected:

NAME OF VARIETY.	Yield per Acre, pounds.	Per cent. Sugar.	Purity.
Zehringen.	10,283	14.00	80.00
Kleinwanzlebener.	10,619	13.64	78.50
Vilmorin Improved.	12,020	12.80	79.10

TIME AND MANNER OF SOWING.

The time will depend entirely upon locality and season; in general, the earlier the sowing the longer will be the season of growth. With us, best results have been secured from sowing in flat drills 20 to 22 inches apart. It is wisdom to use plenty of seed, probably eight pounds per acre. We heard one grower state recently that he had used 15 lbs., but we think the extra seed practically wasted, besides increased labor in thinning.

FERTILIZERS.

Perhaps, in general, the best results have been secured from the application of well-rotted stable manure the previous autumn. Without a liberal supply of available nitrogen, phosphoric acid and potash, profitable crops cannot be grown. Lacking a supply of stable manure, commercial fertilizers must be resorted to. An excess of nitrogenous fertilizer tends to produce large beets with a diminished sugar content. The application of fresh stable manure produces ill-shaped beets with a large growth of small rootlets. Whatever fertilizer is used, it should be rich in potash and phosphoric acid rather than nitrogen. Our Agriculturist, Prof. Towar, prescribed the following for an average soil:

Nitrate of potash, 100 pounds	per acre.
Sodium nitrate, 100 "	
Available phosphoric acid (any source), 30 "	

The fertilizer is best applied broadcast, a few days before sowing the seed. There is practically no definite information available regarding the effect of different fertilizing elements upon the sugar content of the beets. It is always well to experiment on a small scale with even the best of commercial fertilizers, as their lavish or ill-timed use may easily result in a positive loss—a word to the wise.

THINNING AND SUBSEQUENT CULTIVATION.

The *wedder* should be put to work almost as soon as the sowing is finished. Thinning will be possible in from fourteen to twenty days after sowing; the rule is to commence before the fourth leaf appears, but it would be unsafe to delay for this with a large acreage and a season of rapid growth. For 20-inch drills the beets should be thinned to 8 inches; with drills 22 inches apart, 7 inches. We have no data available as to the effect of wide or close thinning upon the sugar content. After thinning, the great object is to keep the surface soil in fine tilth and free from weeds. Special cultivators are made for this purpose, which take care of two rows at a time and almost entirely do away with hand labor. As the season advances, the cultivation should become shallower and narrower between the rows. The drier the season, the longer the period of cultivation.

WHEN TO HARVEST.

The time varies greatly, depending on date of sowing, temperature and rainfall. The factories have men whose business it is to keep close watch upon the growing crop, and at intervals to take samples for analysis. The best external test is seen in the yellowing of the leaves. Many farmers, owing to their fear of early frosts, have commenced harvesting before the beets were fully ripe, and have thereby suffered a loss of one or two per cent. of sugar.

HOW TO HARVEST.

Any way, so long as you get them out. Hand-pulling is too slow and too hard work. The station last season used a beet-harvester, costing twelve dollars, a tool drawn by two horses. It has two hoes running along on each side, and below the

beets. This leaves the ground in such a condition that all that is necessary practically is to lift the beet. There is a great difference as to the way different varieties of beets root and the effect of different soils and cultivation along this line. The properly-grown beet has but a very small crown above the surface of the ground. The per cent. of sugar is much less in the part of the root exposed to the action of air and sun. Many growers have tried cutting the tops off with a hoe, but at best this makes an untidy work, and the saving in handling is not profitable, since the more the beets are handled the less will be the dirt adhering. Topping is best done after the beets are pulled, by means of a knife specially made for the purpose. The crowns should be cut to the base of the first leaf. The cost of topping varies with local prices for labor; it will be from six to eight dollars per acre in most sections.

COST OF GROWING AN ACRE OF BEETS.

This also varies greatly, depending on soil, season, wages, and the facilities available for caring for and handling the crop. Last season at this station it averaged \$33 for wages of man and team, and, in addition, about \$4.50 for fertilizers applied. The crop should not be charged with all of this latter amount. Figures from growers in various parts of the State give the cost anywhere from \$25 to \$35, but an average of these would be nearly right.

AVERAGE YIELDS AND PRICE.

Dependent upon conditions before given, the yield may range from 10 to 16 tons, or more; it is well not to look for too great things at first. We must bear in mind that the factory does not want a four- or five-pound beet, but a neat, smooth one of about two pounds. As to the returns, taking the average of prices paid by all Michigan factories this year, we find it to be about \$5.20 per ton. With an average yield of 10 tons, this gives us \$52 as the average gross receipts from an acre of beets in this State this season. Any man, not a financial expert, can readily see that, at an average profit of \$22 per acre, he is not going to grow suddenly rich unless his acreage is large, but we know of men in this State who will this year grow 150 acres of beets, and they stand to make some money.

HOW BEETS ARE PAID FOR.

When a load, on waggon or car, reaches the factory it is weighed in, and a weight of twenty pounds of beets, representative of the lot, is taken for analysis. Tare, covering dirt and surplus tops, is then estimated by removing all soil and excess crowns from this lot of twenty pounds. The lot is then re-weighed, the difference in weight being the tare. The per cent. of tare varies from 1 to 30, depending on soil, weather, the way the topping was done, and the amount of handling the beets received subsequently. (*Mare* is the term applied to the beet minus the juice.) Tare averages about 7 per cent. The cleaned sample of beets is then taken to the factory laboratory, ground to pulp, and a portion analyzed for sugar. The per cent. of sugar in the sample is the coefficient used for paying for the whole load. The usual scale of prices is \$4.50 per ton of beets testing 12 per cent. sugar, with an increase of 33c. for every per cent. of increase in sugar content. This season there were but few complaints regarding weighing and sampling, as the growers are becoming more familiar with factory methods.

AS TO SUGAR BOUNTIES.

In 1897, the Legislature of the State of Michigan, with a view to encouraging this then *infant industry*, passed an act guaranteeing a bounty of one cent per pound on all sugar made in the State from beets grown in the State. The first sugar company organized on the strength of this law drew some money in 1888. The act was then called in question before the Supreme Court, and was finally declared unconstitutional; with that, the payment of bounty ceased. The checks which the State had provided over the weighing, sampling, etc., were likewise removed, so that at the present time the various factories are entirely independent of State control.

IN CONCLUSION.

Let me introduce some direct evidence on the beet-sugar question:

EUGENE AMES, CARO: "Raised 12 acres in 1899. After paying all expenses, was \$150 behind, caused by land not being in proper condition, and inexperience. In 1900 raised 10 acres; cost of raising, including work, \$112; cleared \$136.30. Contracted this year for 20 acres."

The following were received in reply to personal letters:

"We pay \$4.50 per ton for beets testing 12 per cent. sugar, and in like proportion for those testing a greater or less amount. The beets this last campaign averaged 14.3 per cent. and upwards of 80 per cent. purity, the average price paid being \$5.28, delivered at our factory. MICH. SUGAR CO. Bay City, March 4, 1901."

"In reply to your letter, will say that the average yield of beets per acre at our factory this year was 10 tons. The average net price to farmers per ton, over and above freight and cost of seed, etc., was \$5.05. The average cost to the factory, \$5.56. The average number of acres per contractor was 5.1. The freight charges on beets adopted by the Michigan railroads are: 40 cents per ton for a 25-mile haul or less, and 50 cents for from 25 to 40 miles, and larger rates above this. ALMA, March 4, 1901. ALMA SUGAR CO."

Prof. C. D. Smith on Sugar Beet Cultivation in Michigan.

GENTLEMEN.—A loam, tending rather toward a clay loam than a sandy loam, but deep, rich and friable, is most suitable for growing sugar beets.

A proper rotation for beets is, follow beets with rye the same fall, follow rye with two crops of clover, then beets again.

Manuring—Barnyard manure applied on the rye, if turned under for clover, as it should be, is the general practice.

The beets should be sown as early in the spring as the land is in condition, using a machine which sows two rows at a time and no more, unless the ground is extremely level. Either the Moline or the Gale Manufacturing Companies' seeders are good.

Prepare the soil like a garden, except subsoil the year before sowing the crop if possible, and always plow in the fall if possible.

Cultivate always level and shallow.

In thinning, do not block the rows with a hoe, as we used to do, but put in the hands of each person thinning, a 7-inch weed cutter. Thin as soon as the beets show the fourth leaf, and never postpone this operation.

Harvest when the leaves turn yellow, using either one of the modern makes of best lifters. Personally, I prefer the form of lifter which is used also for a subsoil plow.

Varieties—For heavier soils, the Mangold, Hoerling Improved, and Kleinwanzlebener, in order of ripening. For better location, and excellent cultivation, Vilmorin's Improved is preferable.

A fair yield is 12 tons per acre, costing \$30. A fair price for the beets is \$5 per ton.

When ordered by the factory, usually four deliveries are made: October 1, November 1, December 1, and January 1. Growers do not expect to haul farther than three miles to factory or railroad.

Regarding the value of pulp for fodder, our experiments are not yet concluded. They indicate, however, about half the value of corn silage.

Michigan Agr. College. C. D. SMITH, Director.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to the Farmer's Advocate are answered in this department free.

2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest or which appear to be asked out of mere curiosity.

3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good faith, though the name is not necessarily for publication.

4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

Veterinary.

FITS, FOOT-ROT AND NASAL DISCHARGE.

1. I had a cow that calved the first part of this month. The calf could not stand up, so it was taken to the house, rubbed with warm sacks, and, as it would not suck, we poured the milk down with a spoon. It seemed to be all right till about evening, when it took fits. It would lie flat on the floor, stiffen its legs and tremble all over, while the water ran out of its eyes. It bawled a great deal while in these fits, and its mouth moved just as though it were sucking. We gave it about three tablespoonfuls of raw linseed oil, but there was no visible effect for the better, and shortly after it died.

2. The calf's mother has had foot-rot very bad for about four months. She was running out on pasture for a while, then she was brought in and kept in the stable. She is very lame on one of her fore feet now, and does not seem to get any better.

3. I have a working mare, six years old, that has had a discharge from right nostril since she was three years old. During the summer, while hauling hay, the discharge became greater and had a very bad smell.

Cochrane, Alta.

[1. The symptoms described in the calf are not sufficient of themselves to warrant an authoritative statement as to either the cause or the treatment. Your treatment was correct, but would have been helped by the employment of a few drops of tincture of ginger and a teaspoonful or two of brandy.

2. Wash and examine the foot thoroughly, and if matter (pus) is forming, poultice once or twice with a hot linseed or bran poultice. Follow the poulticing with daily washings with a solution of bluestone, one ounce to the quart of water; apply pine tar to the raw spots after using the bluestone solution.

3. Your mare is suffering from a decayed tooth or nasal gleet; most likely the former, in which case the aid of a competent veterinarian is indispensable.]

LUMP ON HEIFER'S ANKLE.

P. C., Middlesex Co., Ont.—"I have a heifer that has a lump on the outside of her leg, just on the ankle, about the size of a goose egg. It has been on all winter and was about the size of a hen's egg when I first saw it. It is soft and spongy. Can you tell me what to do with it?"

[The soft, spongy condition of the lump, and its gradual increase in size, indicate it to be an abscess, either serous or purulent. Treatment consists in carefully opening it at the lowest part and allowing the escape of its contents, and then injecting it daily with one part carbolic acid to seventy parts water until the cavity fills and the skin heals. In opening be careful to not cut too deeply and penetrate into the joint.]

STRYCHNINE POISONING.

1. How much strychnine poison will it take to kill a seven-year-old cow which is in a thriving condition?

2. Is there any way a person can tell an animal that has been poisoned with strychnine without having the stomach analyzed?

3. Can any veterinary surgeon analyze the stomach of an animal? X. X. Maple Creek, Assa.

[1. An exact amount cannot be stated; generally speaking, thirty grains or upwards.

2. By the symptoms presented before death, such as quivering and twitching of the muscles, severe spasms, attempts to vomit, etc. Post-mortem shows the blood dark and unusually fluid, congested condition of the lungs, and red patches on the intestines, the left side of the heart contracted and containing little blood; to be positive, an analysis of the stomach contents is necessary.

3. No, for the reason that the chemical apparatus necessary is rarely in the possession of a veterinarian. It requires the work of a specialist, known as an analyst.]

LUMP JAW IN CATTLE.

HENRY BROUGHTON:—"I have been troubled with lump jaw in my stock for several years, having one or two cases every year. The first case I had was some three years ago last fall, on a fine two-year-old steer. I did not notice it until it was pretty well advanced (a large swelling on or under jaw). I then treated it for about two months with a blister I got from a neighbor, but it got worse, and I finally shot the animal to have it out of the way. The disease is still with me. I have cured most of my cases with Fleming's Lump Jaw Cure, only losing two animals. What I would like to know is: What is the cause of lump jaw? What is the best way of getting rid of it?"

[1. A great deal has of late been written regarding lump jaw in cattle, and opinions differ as to the curability of the disease, and also as to whether or not an ordinary case renders the flesh unfit for human food. It is undoubtedly caused by a fungus or spore, which is taken into the system either with the animal's food or by receiving into the mouth the salivary discharge from an affected animal. In some localities the disease is much more common than in others, which points to the fact that the element necessary for its production exists on the herbage. It is also noticed that when an animal affected with the disease in an advanced stage is stabled and watered along with healthy animals, that the disease is liable to attack others. The fungi, entering the mouth of an animal, apparently locate in the region of the tongue or jaw, for which they have an affinity, and, multiplying rapidly, cause the disease either in the muscles or bones of the jaws, the throat or the tongue, as the case may be.

2. The best way to get rid of the disease is to isolate all affected animals and try to affect a cure. I must say that I have little faith in any of the advertised specific lump-jaw cures, but you seem to have had good results from Fleming's cure, and, as any person is warranted in continuing any treatment that has proved successful, I would advise you to continue it. I find that in the early stages the administration of iodide of potassium, internally, from 4 to 12 drs. daily, according to size of the animal, for 10 to 12 days, will often arrest the disease, or, if the tumor be formed in soft tissues, it can be dissected out; but when the bone becomes involved, the better way is to destroy the animal. By isolating all affected animals on the first symptoms, and feeding them for the block as soon as cured, or slaughtering if incurable, you should be able to get rid of the disease, unless it is caused by some local conditions which you cannot control.]

PARTIAL OPACITY OF CORNEA IN MARE—RUPTURE IN MARE.

T. A. S., Elgin Co., Ont.—"I have a mare that has a thin, glassy-looking scum on her eyes, which nearly blinds her. She can see enough to follow a well-beaten sleigh track, or go to a water trough to drink, and find the way back to the stable and go to her own stall without guidance on a clear day. The cause was an attack of inflammation in her eyes, which she had last summer. Her owner at that time treated her with Compass Oil. Can anything be done to save her eyesight?"

"2. My neighbor has a mare, 7 years old, with a rupture on her side about the size of a ten-quart pail. He has diminished the lump about one-half by using liniment on it. Can anything be done for her in the way of an operation, such as opening the outer skin and returning the intestine into its proper place and sewing the abdominal cavity up, then clamping the outside? Would she be fit to breed as she is?"

[1. What appears to be a scum over the eye is due to a deposit of lymph between the layers of the external coat of the eye, the result of inflammation. The condition has become chronic, and it is doubtful if much good can be done. Apply the following lotion to the eyeball with a feather or dropper, twice daily, and have patience, and you may succeed in causing absorption of the exudate: Nitrate of silver, 5 grs.; distilled water, 1 oz. Put a few drops into the eye morning and evening, and shield the eye from wind and sun by a white cloth tied to the blind of the bridle.

2. It is doubtful whether treatment for the rupture in your neighbor's mare would be successful.

An operation such as you suggest is the only thing to do, and there is great danger of complications following the operation. None but an expert should attempt to operate. As to breeding, many ruptured mares breed; but if parturition should be difficult, the rupture might enlarge and cause further trouble and probably death.]

ABORTION IN MARE—CONCUSSION OF THE BRAIN IN HORSE.

F. W. V., Provencher:—"I have a mare six year old. She has lost two colts a month before her time. I work her on the horse power about two hours a day, about once or twice a week. I feed her on oats, hay and a little straw. She gets boiled oats often at nights, with at times a little salt and saltpetre, and she is now three months from foaling. Is there anything I can do to prevent her losing it. She foals about June, and works every day through seeding.

"2. I had a four-year-old horse that was working at light work. I had been feeding him good hay and oats (about two gallons a day). He came in from work at six o'clock and was fed some hay; in about an hour I gave him one pail of water and one gallon of whole oats. At half-past nine, gave him some hay and bedding and left him eating hay. I found him dead the next morning at six. He had the floor torn up in his stall and his head skinned and badly swollen. I thought it was colic and turned to inflammation. What would be the cause, and, if such occur again, what would be the treatment?"

[1. Your mare has acquired the habit of aborting, as some females do. Feed on easily-digested food, as good clean hay in moderate quantities, a liberal supply of bran, with a limited supply of oats of good quality, and give two or three carrots daily. The water must also be of first-class quality. Do not work her on the horse power or treadmill. Regular exercise or light ordinary farm work will be beneficial, but do not ask her to perform heavy or tiresome work. About the usual time of abortion, keep her very quiet in a partially-darkened box stall well ventilated. Avoid all excitement, feed very light and watch her closely. If she exhibit any tendency to abort, give her about 2½ ozs. laudanum in half pint water as a drench. You can repeat the dose every two and a half hours as long as the symptoms appear to demand it. This treatment will probably avert the accident, and if she gets over her accustomed period of abortion, it is probable she will carry her foal to full term.

2. It is possible your four-year-old got cast in his stall and died from concussion of the brain, caused by him pounding his head against the stall in his efforts to get up; or he may have died from acute indigestion with rupture of the stomach or diaphragm; or from inflammation of the bowels; or rupture of a blood vessel; in fact, there are many conditions that would cause death, and a post-mortem examination is the only means of telling the cause of death where no ante-mortem symptoms are known. You ask what would be the treatment if such should occur again? The removal of the carcass is the only treatment we can suggest for an animal found dead in the stable. If observed before death, of course, he should be treated according to the symptoms presented. If it were, as you suppose, colic, the best thing you could do would be to give the following drench and send for a veterinarian: 2 ozs. each of laudanum and sweet spirits of nitre, and 1 oz. fluid extract of belladonna. The reason I say send for a veterinarian is that acute diseases that cause death so suddenly require skillful treatment promptly. No fault can be found with the feeding, and diseases of this nature frequently occur without any apparent cause, merely from a weak condition of the digestive organs that cannot be suspected and that probably is only temporary.]

LEUCORRHOEA IN MARE—WORTH ITS WEIGHT IN DOLLARS.

GEORGE D. SHAREN:—"Please find enclosed one dollar for renewal subscription to the FARMER'S ADVOCATE for 1901. We cannot do without it. It is worth its weight in dollars to us. I would like you to answer me a question or two in regard to a mare we have. She is nine years old or more, in good hearty condition as far as work and feeding is concerned: was fed oats and hay all winter, with a turnip sometimes; was worked hard all winter, and has since last fall been passing off a lot of thick, curdy matter, like sour buttermilk, discharged from her womb. I bred her last spring, but to no purpose. Please tell me the cause and treatment? I got some medicine from a vet. and syringe her, but all to no use."

[Your mare has an uterine disease called leucorrhœa, a chronic inflammation of the mucous membrane of the womb. It is very hard to treat, and it is probable the veterinarian in attendance is treating it properly. I would recommend you to flush the womb out well every second day with 1 part corrosive sublimate to 2000 parts water heated to about 100 degrees, and give internally, three times daily, 25 drops carbolic acid, either as a drench shaken up with ½ part cold water or mixed with her food. This treatment will certainly mitigate the symptoms and probably effect a cure. Do not breed her until all discharge ceases, as it will not only be useless, but dangerous for the stallion.]

SYMPTOMS OF PNEUMONIA IN HORSE BOTS.

FARMER: "1. What are the symptoms of a horse with pneumonia without a cough? Would it have great looseness of the bowels?"

"2. Can bots get so numerous in a horse that they will kill it, and what are the symptoms of bots in a horse? Do bots attach themselves to the stomach of a horse before it dies, or are they floating in the stomach?"

[1. A horse suffering from pneumonia will in the early stages have a full, strong, frequent pulse, increased temperature, mucous membranes injected, breathing labored, appetite impaired or entirely suspended; will stand continuously with nose protruded and nostrils dilated. Usually there is a cough, and instead of diarrhea, there is a tendency to constipation. As the disease advances, the pulse becomes weaker and more frequent; the other symptoms increase; the breath becomes fetid, etc.

"2. In rare cases, where bots are very numerous, they let go of the stomach in large numbers, form into a ball and stop up the pylorus (the passage into the intestine) and kill the animal. Horses do not suffer from bots except in cases as stated above, when the animal will present the symptoms of intestinal obstruction from any cause. Bots are attached to the lining membrane of the stomach by their tails, and as long as they remain so, no inconvenience is manifested by the horse. The popular idea that they eat through the stomach and cause death is entirely unfounded. In most cases, as they mature they let go their hold in small numbers, pass off in the feces, burrow in the ground, and mature into the gadfly, which is ready to deposit its eggs on the legs and jaws of the horse, when by falling into the feed box from the jaws, or being licked off the legs, the eggs gain the stomach, become attached to the mucous membrane, and develop into bots, to be passed off in the feces in the spring, etc., etc. We often hear of a case where bots have killed a horse, and the person who relates the fact will endeavor to prove its truth by stating that when the animal was opened, there was a big hole in the stomach that was caused by the bots eating through, and that they had escaped into the abdominal cavity. The facts of the case are entirely different. The horse had suffered from acute indigestion, with the formation of gases in the stomach, which caused rupture, and consequently an escape into the abdominal cavity of a portion of its contents, along with which any bots that had let go of the stomach but were still in the organ. As I have stated, bots do not cause sickness or death, as is generally supposed.]

NON-OCCURRENCE OF OESTRUM IN COW AND HEIFER.

H. D., Northumberland Co., Ont.:—"I have a cow that had her first calf last spring and had a little trouble calving, but is in good condition now, but has not come in season yet or shown any signs. Can you tell me anything to give her so that she will get with calf?"

E. C. S. F., Que.:—"Have two heifers, three years old this spring, that came in last September. They have not been in heat since. Please state cause and remedy? They are giving milk at present and are not fed too heavily."

[The non-occurrence of oestrus is due to an inactive or diseased condition of the ovaries, and it is probable nature will overcome this when the weather gets warmer and they get grass. It would be well to allow the bull to run with the heifers, as in some cases the periods occur but the animal does not show the usual symptoms, and hence the condition is not recognized by the attendant.]

Miscellaneous.

EXEMPTIONS FROM SEIZURE IN THE N.-W. T.

Kindly let me know through your valuable paper, what is exempt from seizure on a farm in the N.-W. T.?

Wetaskiwin, Alta.

[The following real and personal property of an execution debtor and his family is exempt from seizure in the Northwest Territories:

1. The necessary and ordinary clothing of himself and family.
2. Furniture, household furnishings, dairy utensils, swine and poultry to the extent of \$500.
3. The necessary food for family of execution debtor for six months, which may include grain and flour or vegetables and meat, either prepared for use or on foot.
4. Three oxen, horses or mules, or any three of them, six cows, six sheep, three pigs and fifty fowls, besides the animals the execution debtor may have chosen to keep for food purposes. Also food for the same for the months of November, December, January, February, March and April, or such of these months, or portion thereof, as may follow the date of seizure, provided such seizure may be between the 1st of August and 30th April next ensuing.
5. The harness necessary for three animals, one wagon or two carts, one mower or cradle and scythe, one breaking plow, one set of harrows, one cross plow, one horse rake, one sewing machine, one carpet or binder, one set of sleighs, one seed drill.

"6. Books and professional instruments.
"7. The necessary and necessary implements to the extent of \$500, used by the execution debtor in the practice of his own profession.

8. Seed grain sufficient to seed all his land under cultivation to the extent of eighty acres at the rate of two bushels per acre (defendant to have choice of seed), and fourteen bushels of potatoes.

9. The homestead, provided it be not more than 160 acres; if more, the surplus may be sold subject to any lien or encumbrance thereon.

10. The house and buildings occupied by the execution debtor, and also the lot or lots on which the same are situate, to the extent of \$1,500.

The execution debtor shall be entitled to choice from the greater quantity of the same goods and articles which are hereby exempted from seizure; provided, however, that nothing is exempt from seizure except food, clothing, and bedding for the execution debtor and his family, the price for which forms the subject matter of the judgment upon which the execution is issued.

Nothing is exempt when the execution debtor is about to abscond or has absconded.]

TAXATION OF UNPATENTED LAND AND STATUTE LABOR.

1. I entered in Manitoba a homestead claim, August 21, 1889, and perfected my entry October 23, 1890. I built on it, during the winter 1890-1900, a block-house, where I was living with my family that winter. I cleared land, about 2 acres, but didn't bring it yet under cultivation, as it is bush land and hard to break. As I took the homestead, I understood that my claim is exempted from every taxation for five years, or till I get deed on it. Notwithstanding that, the Council of the municipality of St. Clements taxed me already for 1900. In the taxation is included a certain amount for statute labor too, while the municipality did not perform any roadwork in our district or either notify me to do any such work. I would have done the day labor it required rather than have to pay for it. How is the law about taxation of homestead lands? Is the municipality entitled to compel me to pay any taxes or perform statute labor before five years, or before I have got deed on my homestead claim?

2. Is the municipality entitled to charge me for day labor on roads, if it did not require me before to do any, and I have not refused to do it?

3. If I should be exempted for aforesaid time from every taxation, to whom should I apply to cancel the tax levied on my homestead?

4. How much land has a homesteader got to have under cultivation at the end of the three homestead years, when the land is bush and scrub land?

Louise Bridge.

SUBSCRIBER.

[1. A homesteader is liable to pay taxes from the time he applies for a homestead, but until he receives his patent the land cannot be sold for taxes; but once the patent is issued, the land is subject to be sold for taxes which have accrued due since taking possession.

2. It depends upon the by-laws of the municipality. It is usual to notify when and where the road-work is to be done.

3. Send to the Crown Lands Office, Winnipeg, for the rules of homesteading.

4. It depends upon the terms under which a homestead is taken. If the land is scrubby, 15 acres under cultivation would probably satisfy the inspector; or if a man has cattle, the same quantity of breaking is not expected as from a man who has but few cattle.]

FOR SMUT IN OATS.

E. M.:—"Please say in your answers column, whether or not you consider 'formalin' a better treatment than hot water for oat smut? If you are not fully convinced that formalin is a better treatment, kindly give minute directions for the hot-water treatment?"

[It is a much simpler matter and quite as effective to treat oats for smut with formalin as with hot water. Tests conducted at Brandon (Man.) Experimental Farm proved formalin an effective treatment. Oats steeped for five minutes in formalin, 4 1/2 ounces to 10 gallons of water, gave in crop from that seed 2 1/2 good heads and 3 heads of smutty grain. The crop from seed steeped one hour in the same strength of formalin was all free from smut. The oats treated were originally very smutty. Sprinkling the oats with formalin, 9 ounces to 10 gallons of water, proved effective in destroying the smut.]

SALT FOR STOCK.

J. H. KENDRICK:—"I would be pleased to have some advice, through the columns of the ADVOCATE, from some leading farmers as to which kind of salt, the fine or the coarse, they consider the best for stock?"

[While our almost constant contact with stock-farmers leads us to the conclusion that salt is regarded as salt by them, whether fine or coarse, we will willingly grant space to a discussion of this subject. In practice, we find the coarser grades more commonly used than the finer, for the reason that they are cheaper, as they are all equally salt and about equally as easily dissolved in the mouths of the animals. Were rock salt as cheap as the granular sorts, it would probably become universally used, since it can be placed in the mangers without becoming mixed with the food. It is also better for summer use, because when exposed to the weather it is not readily dissolved and wasted by rain. Just here we would point to a mistake made by some stockmen in salting their animals. Believing that salt has a beneficial effect upon the health of the animals, it is mixed with their feed, so that they are compelled to take, perhaps, considerably more than their systems desire or require.

The effect of this is to stimulate the action of the kidneys and other organs, and thus cause a serious waste of nourishment to the animals. This, therefore, is an unnecessary tax upon the animal, and, therefore, upon its owner. Nor does the injury end here, because a further effect is to cause excessive consumption of water, which is itself injurious, and when the animals have to drink from a cold creek, the warming of the extra water in their bodies demands food that should go to the building up of tissue or milk. The rational manner of salting stock is to allow them access to a supply at all times, so that they can take just what their systems demand, which is the only correct guide.]

REMEDY FOR RINGWORM ON CATTLE.

"Enclosed find one dollar, being my subscription to the FARMER'S ADVOCATE for another year. This will make my thirty-second year, and I am not tired of your paper yet. It is a welcome visitor in my house, and I could not think of doing without it now. In the February issue of the ADVOCATE, someone enquired the best remedy for ringworm in cattle. I will tell you the best remedy I ever knew. It is simple, cheap, and good, as it never fails. It is within the reach of every ordinary farmer. Take goose oil and sulphur, make a nice soft salve, and anoint the parts affected. It never fails to do its work. One application will generally do the work; if not, make another application in a few days, when the rough scales have dropped off. J. WIGGINS."

Chicago Markets.

Chicago, March 26.—Estimated receipts were: Cattle 3,500; hogs, 16,000; sheep, 13,000.

Beef Cattle.—Yesterday's cattle prices started strong, and kept getting stronger right up to the close. It was an all-day market, with orders unfilled at the close. The best cattle here were sold at 1.75 to 1.75 lb. steers, at \$5.75 to \$5.87. There were orders for strictly prime cattle that buyers were unable to fill at any price. The cheaper grades of cattle sold well, and the lighter weights are meeting with active competition. Such cattle as were being sacrificed so recklessly a short time ago are now being sought for. Plain, fat, heavy cattle sold at \$3.00 to \$3.35, and inferior to fair, light and medium cattle sold at \$3.80 to \$4.60.

Butcher Stock.—At first, choice offerings were pretty freely taken, later market being rather slow, with a tendency to lower prices. Cows and heifers of good flesh and quality sold readily at \$3.40 to \$3.75; those suitable for export at \$3.90 to \$4.15, though it takes good ones to bring that price; common, \$2.40 to \$3.25; cutters, \$2.50 to \$3.10; canners of the better class, at \$2.00 to \$2.60; common stuff, slow sale, at \$1.50 to \$1.85.

Bulls were in fair demand, at \$3.75 to \$4.25 for exporters, the very best going at \$4.50; bolognas and common feeders at \$2.25 to \$3.00; fair to good, \$3.10 to \$3.50.

Veal Calves were 25 cents lower, owing to liberal receipts and slow demand. The best at \$3.50 to \$3.75; common and heavy, \$3.50 to \$4.25; some scrubs as low as \$3.00. Stock calves are still in some demand, for those of quality, at \$4.00 to \$4.50, choice ones landing as high as \$5.00, while the medium grades sell mostly at \$3.50 to \$3.80.

Sheep and Lambs.—Receipts were moderate and the demand fair. The market was steady to firm. Shorn stock was in good demand, and woolled stock ruled comparatively slow. The market for export sheep and yearlings is improving. The foreign markets are getting better and are bound to be good for a long time, as the British home supplies are light and the South American embargo makes a big difference. Some Colorado-fed lambs sold to an Eastern buyer at \$5.50; shorn lambs, \$4.00 to \$5.25, mostly \$5.00 to \$5.15; yearlings, \$4.75 to \$5.10; export shorn wethers, 128 lbs., \$4.80; court woolled wethers, \$4.85 to \$5.00; ewes, \$3.50 to \$4.75.

Hogs.—Receipts were lighter than looked for, and the quality was not good, though there were some few very choice hogs. The mixed packing hogs cost mainly about \$6.00 to \$6.25, with inferior to fair mixed at \$5.90 to \$5.95. The heavy-hog market was fairly active, and prices were mostly higher than previous day. Prices ranged from \$5.90 to \$6.05 per cwt. The light-hog market was fairly active and prices were mostly higher. The regular light-hog buyers were bidding about \$5.92 to \$5.95, but lightweights sold, mixed, at about \$6.00. The market was highest in the middle, and a few common light mixed hogs were left late.

United States Sugar Beet Crop.

The American beet-sugar factories having finished their year's run, the *Sugar Trade Journal* gives the results of 1900-1 as below, in tons of 2,000 lbs.:

	Beets Received.	Sugar Produced.
New York	31,048	4,109
Illinois	22,193	1,500
Ohio	20,000	1,500
Michigan	29,774	27,477
Minnesota	18,036	1,328
Nebraska	67,410	4,955
Colorado	61,000	6,700
Utah	77,582	8,546
Oregon	9,097	995
Washington	6,500	700
California	214,784	28,546
Total	511,654	86,083

The factory in New Mexico did not work during the past season. Six new factories are contracted to be built this year, and the old factory at Menominee Falls, Wis., which has long been idle, is now being rebuilt. The long drought in California rain which has lately fallen in that State, a large crop is assured for this year.

In the census year 1899 there were thirty-one beet-sugar factories in the United States, distributed among ten States and one Territory, representing an invested capital of \$20,958,519, and producing 71,427 long tons of beet sugar, valued at \$7,323,857. This small product for the capital invested was due largely to the fact that the census year was a disastrous one for the crop. California had eight factories, with a total capital of \$10,139,780; Michigan, nine, with a capital of \$4,013,743; other States, fourteen, with a capital of \$6,804,996. Of the thirty-one factories, twenty-nine were controlled by incorporated companies and two by individuals. In addition to the factories operated in the census year, six were under construction. The capital invested in new factories is \$3,800,000, making a total of \$24,738,519 for the industry in the year 1900.

Coming for Canadian Remounts.

A cable message from Great Britain states that Major Dent has been appointed Imperial Remount Officer in Canada, with the rank of Lieutenant-Colonel, and has sailed on the Teutonic to purchase more remounts for the army, especially in the Northwest. Major Hon. Ormsby-Gore, of the 11th Hussars, accompanies him as assistant officer.

British Cattle Markets.

London, March 25.—United States cattle, 63d.; sheep, 74d.
Liverpool, March 25.—Canadian cattle, 63d.; trade firm.



President Lincoln's Favorite Poem.

SAID TO HAVE BEEN COMPOSED BY WILLIAM KNOX, A YOUNG SCOTCHMAN.

Oh, why should the spirit of mortal be proud? Like a swift-fleeting meteor, a fast-flying cloud, Like a flash of the lightning, a sweep of the wave, Man passes from life to his rest in the grave.

The leaves of the oak and the willow shall fade, Be scattered around, and together be laid; And the young and the old, and the low and the high, Shall moulder to dust and together shall lie.

The maid on whose face, in whose smiles, in whose eye, Shone beauty and pleasure—her triumphs are by; And the merriment of those that loved her and praised, Are alike from the minds of the living erased.

Our youthful companions, so tenderly loved, Are from our affections forever removed; Death numbers them now with the things that are past, They've fled like the snow-flake that whirled in the blast.

The child that a mother delighted to rear, The mother that nourished that infant with care, The husband that infant and mother had blessed, Each all are away to their dwelling of rest.

The hand of the king that the sceptre had borne, The brow of the priest that the mitre had worn, The eye of the sage, and the heart of the brave, Are hidden and lost in the womb of the grave.

The warrior who waded through blood for a name, The sailor that dared every danger for fame, The statesman that wielded a country's doom, Have all passed away, and are hid in the tomb.

The peasant whose trade was to sow and to reap, The herdsman that climbed with his goats to the steep, The beggar that wandered in search of his bread, They have faded away like the grass that we tread.

The saints that enjoyed the communion of heaven, The sinner that dared to remain unforgiven, The wise and the foolish, the guilty and just, Have quietly mingled their bones in the dust.

So the multitude goes, like the flower and the weed That withers away, to let others succeed; So the multitude comes, even those we behold, To repeat every tale that hath often been told.

For we are the same that our fathers have been, We see the same sights that our fathers have seen, We drink the same stream, and we feel the same sun, And we run the same course that our fathers have run.

The thoughts we are thinking our fathers would think, From the death we are shrinking they too would shrink, To the life we are clinging they too would cling, But it speeds from the earth like a bird on the wing.

They loved—but their history we cannot unfold; They scorned—but the heart of the haughty is cold; They grieved—but no wail from their slumbers may come; They joyed—but the voice of their triumph is dumb.

They died—aye they died! and we who are now, Who walk on the grass that grows over their brow, Who make in their dwelling a transient abode, Meet the changes they met on their pilgrimage-road.

For hope and despondency, pleasure and pain, Are mingled together like sunshine and rain; And the smile and the tear, and the song, and the dirge, They follow each other like surge upon surge.

'Tis the wink of an eye, 'tis the draught of a breath, From the blossom of health to the paleness of death— From the gilded saloon to the bier and the shroud, Oh, why should the spirit of mortal be proud?

Queen Alexandra.

SHE IS ALTOGETHER CHARMING AND A WOMAN OF STRONG INDIVIDUALITY.

Queen Alexandra is very domestic. She has charming taste in dress. She regularly visits the various hospitals in which she is interested, and at Sandringham all the poor around are in her especial care.

When she visits the kennels she wears a white apron with the pockets bulging out with bread. Someone remarked to her that his dogs would not eat bread, to which she replied gayly: "Then I am afraid they cannot be very well trained."

It has been said that she is the only Princess who has never been known, when she held a drawing room, to leave it until it came to a natural end. As Princess she was never stringent in her rules of etiquette. "Won't you sit down?" she would say at the very first symptoms of fatigue.

She is very religious, but though strict regarding her own actions, is to others charitable and broad-minded.

She is an indefatigable letter-writer. As a girl she made her own hats. She was responsible for the "Princess gown."

She skates gracefully and rides well. Favorite gifts with her are jewels, a piano, and at Christmas time a signed photograph of herself in a silver or handsome leather frame, and to some particular friends a piece of her birthday cake invariably comes in a little box tied up with white ribbons.

She loves music and holds the degree of "doctor of music."

Her jewels are superb, but she wears few except on state occasions.

Dr. Molar—Now the tooth is out, Mrs. Maloney. If the cavity commences to bleed, you must stand and hold your arms right up over your head, like this.

Mrs. Maloney—Howly Saints! Av Oi shtand loike that, and will Oi ever get me in a morning done?

Ingle Nook Chats.

MY DEAR GUESTS,—

April, replete with the glorious songs of the springtime, is with us once again, and many of you will be eager to learn the result of our seventh contest. As I wish to leave room for a large number of the good conundrums sent in, I shall at once proceed to allay your curiosity. A great many failed to mention their age or the class in which they competed, so I decided to leave all in one class and select the three best lists, and, strangely, these have all been sent by children of 12 years of age.

I allowed a certain number of marks for each conundrum, and by this test I award the prizes to the following contributors:

Miss Teresa McCrea, Springtown, Ont.; Master Verne Rowell, Bryanston, Ont.; and Miss Janet Waterman, Fraserville, Ont.

It was difficult to choose from among so many, but many who sent some excellent conundrums, sent also some very poor ones, thus lowering their aggregate of marks. An occasional one bordered on the vulgar, but they were exceptions. I have selected some of the best items from non-winning lists, and will, as space permits, publish them, with the names of the sender attached. Contributions were received from the following: Agnes C. Calder, F. Chas. McKenzie [you did not enclose answers], Randle G. Cole, Harvey E. Potter, A. L. McDiarmid, Lily Rogers, Ethel Jose, Janet Waterman, Christina McFarlane, Colin M. Blyth, Mary Adeline Potter, "Scotch Lassie," Olive Holland, Jennie Matchet, Maggie Ivins, Bessie Bray, F. A. Newman, Austin Dunn, Florence O'Brien, Eunice Dunning, Maggie Kinella, Harold B. Lyon, Abbie Kinella, Nola E. Lyon, Nelly Laverne, Teresa McCrea, "Eureka," Violet Metcalfe, John McCreher, Annie C. Gibson, Eva V. Stephens, Jessie Cochrane, "Morag." Now, as far as this contest is concerned, we may say, as the cook did when she put the egg in the coffee, "That settles it."

David S. and others—It is not possible for me to let contributors know (except through the medium of the Nook) whether or not I receive their communications. If addressed as directed below, they are almost certain to reach me safely.

Mrs. J. H. T. So glad to hear from a "house-mother." I know about how much time there is for literary pursuits. I'm housekeeper, too, although I do not use the same prefix as you.

"Morag"—Are "a cozy room, piles of books and a jolly girl friend" beyond the pale of realization in the country when "the days that are dark and dreary" come? I do not think so—at least, not in a general way; but if the latter be not available in human form, why not select, for the time being, one of the splendid creations you may find among your pile of books? Now, little (l) girl, don't you believe that either "fame" or riches can make one certainly happy; 'twere better to be able to say in Shakespeare's words:

"My crown is in my heart, not on my head; Not deck'd with diamonds and Indian stones, Nor to be seen: My crown is called Content— A crown it is that seldom kings enjoy."

Iain—What an unusual name! Do I use the right initial, or should it be "J"? Your writing looks strangely familiar. I never supposed our Nook contained so many poets, but I have over sixty contributions already, and still they come. Dear old Queen Victoria, her very name stirs all Canadian hearts.

Just a word of greeting to my numerous new guests. About forty have arrived since our last meeting, each and all welcome to the accommodatingly expansive circle of our ain Ingle. Come soon again and often. Almost all of you can make a fair showing on Contest IX., announced last issue (Mar. 29th), and there's a whole month yet in which to do it. An interesting competition will be announced in April 29th issue. Look for it. Address all matter for this column to

Ingle Nook Chats, Pakenham, Ont. THE HOSTESS.

CONUNDRUM CONTEST.

BY TERESA M'CREA (AGE 12), SPRINGTOWN, ONT.

- 1. What is the difference between a Boer and a Boxer? The letter x. 2. What is the shape of a kiss? It is elliptical (a lip tickle). 3. Why cannot a fisherman be generous? Because his business is too selfish to sell fish. 4. If a British soldier and a Boer were locked in a car, which would get out first? The man with the khaki (the man with the car keys). Paul Kruger wear rubbers! To keep DeWet from defeat (the wet from the feet).

BY "EUREKA," BRYANSTON, ONT.

- 1. How would the aspect of the Eastern world be changed if a negro were to drop a platter of turkey? Greece would fall, Turkey would be overthrown, China would be broken to fragments, and Africa humiliated. 2. Why was Noah a good financier? Because he floated a limited company while the rest of the world was in liquidation. 3. Why was Job always cold? Because he had poor comforters. 4. With what malady may a girl who is deeply in love with a fellow named William be said to be afflicted? Biliousness. 5. When were the first sweetmeats made? When Noah preserved pears (pairs) in the ark.

BY JANET WATERMAN, FRASERVILLE, ONT.

- 1. Why does a miller wear a white hat? To keep his head warm. 2. What is the difference between a rooster, a Yankee, an old maid, and a glue pot? The rooster says, cock-a-doodle-doo; a Yankee says, "Yankee-doodle-doo"; an old maid says, any dud'd'll-doo. But what about the glue pot, you say? Oh, that is where you get stuck. 3. If a pig wished to build a house, how would he go about it? Tie a knot in his tail and call it a pig-tie (pig sty). 4. Can you tell me why A hypocrite's eye Can better decry Than you or I. On how many toes pussy-cat goes? A man used to deceit Can best counterfeit (count her feet). And so, I suppose, He can best count her toes. 5. Why need people not be hungry in Egypt? Because of the sand which is there (sandwiches).

The Conjurer.

Into the world from far away, Where the year is always turned to May, And the wind sounds soft as a lark aloft, A conjurer came once on a day, Many a mystic spell he knew Wherewith to turn gray-skies to blue, To make dull hours grow bright as flowers, And tasks that are old turn light as new, A touch of his magic wand, and lo! From empty hands sweet favors flow, And pleasures bloom in lives of gloom, Where naught but sorrow seemed to grow, Out of the stormy sky above, He brings white Peace like a heavenly dove, His might is sure and his art is pure, And his name—the conjurer's name—is Love.

What We Do in Early Spring.

It is well worth while to endure the rigors of a winter in a northern climate, when one can have the glorious compensation of seeing and feeling the glory of a returning spring, and surely these lengthening days herald her approach. The winds may come directly from the north-east, moaning so weirdly and wintry through the bare branches of the trees, but we can patiently wait, for we know they too but herald the return of the birds. The soft winds will soon come up from the south, completing the minstrelsy in the woods, with its full orchestra of leaves; and with this trust in nature, we breathe thankfulness for the good fortune that places us on a farm, to welcome the birds, flowers and all Nature as she appears in beauty with the fuller spring.

I think about early spring hang more garlands of anticipation than about any other months of the year. We make our plans for spring cleaning, romance upon the possibility of new muslin curtains and fresh-chair-coverings, and the coming styles in shirt-waist-sleeves; we wonder how many of our chicks will be ready for broilers by the middle of April, and convert them into dollars in anticipation; we speculate upon a market for early potatoes, and hundreds of money-making schemes possess us in March, for we must make money some way. It never occurs to our fathers and brothers that we require pocket money; that we should aspire to an idea so extravagant is highly condemned by them. I suppose there are really good, patient, long-suffering girls who will work, without a murmur, "for love," but most of us prefer something more tangible for our labors; and if at the end of summer we have saved sufficient to go on a trip somewhere, what a gratifying sensation to know we have made it all ourselves. I want to tell you about some beautiful Jerseys of which a girl friend of mine is the proud possessor. It was on her birthday, ten years ago, a little heifer calf arrived on the farm. This her father gave her as a birthday gift. She will tell you with pride into what a beautiful cow little Flora developed, and won as a yearling many prizes at various shows, and now she stands surrounded by four fine daughters, each with a promise of a creditable career before her. It is very interesting to go to the stable to see them being milked; such a hearty welcome they give their mistress; and as she goes to each one, it will rub its head against her arm, and lick her hand. "Do you wonder I love them?" she said to me. "They know they are mine, and won't give a drop of milk to the men. I did not wonder one bit that she loved them, and the money she makes is surprising. She has her own special butter print, and gets the highest creamery price for every pound. Another girl I know owns sheep. She started with one, and the first year made 100% on her money invested. What these girls have succeeded in accomplishing, surely we might at least make an attempt at, and if we go about it in an earnest, businesslike way, our fathers, I know, will not only be willing, but pleased to start us and help us along. I trust you will not think I am wandering from my proper sphere. Someone has said, "A woman's work in a home is to secure its order, comfort and loveliness," so in closing I shall take the privilege of suggesting what I think a good idea for our bedroom floors. Stain the edges, and have a wool rug, or ordinary carpet for the center, as it is such hard work moving dressing-tables, etc., and sweeping out the corners. The following stain makes a very pretty imitation of rose-wood: Boil one-half pound logwood in three pints of water, till it is of a very dark red; add half ounce of salt of tartar. Stain the wood with liquor while it is boiling hot, using an ordinary paint-brush; give it three coats. Then polish, when quite dry, with the following: To two tablespoonfuls of boiled linseed oil add one of turpentine and one of vinegar; rubbing, until perfectly smooth, with a flannel cloth. ONE OF THE GIRLS.

Traveling Notes.

New York, 22nd March.—Off again. A friend of mine, named Jane, now married and living in the Northwest, once remarked that she believed my ancestors must all have been tramps, which accounted for what she was pleased to call my hereditary restlessness. I am not going to dispute her opinion, nor am I in the mood to contradict her. I will only say that I hope my ancestors derived as much pleasure and satisfaction out of their tramping proclivities as I generally do. Indeed, some of them certainly must have done so, as one or more of our musty old family records show; but if I become too retrospective, I shall never get started upon my journey. This time I do not go alone; Fan is going with me. Fan is one of the nicest girls from one of the nicest villages in Canada. She has said good-by to her quiet country home, to Vic, which takes her with such speed along the lanes and round the corners; good-by to the old cows, to the ducks and the chickens, and all those other animals which or who require to be fed three times a day to keep them good-tempered. We are off to England to see our numerous relations and as much as ever we can of the dear old mother country. In the meantime we are spending a few days in New York, that busy, hustling, immense center of American activity, with its high buildings, stately residences, wonderful bridges, its beautiful Central Park and open squares—such boons in a crowded city. We are struck with the perfect cleanliness of the streets and the courtesy of the people we meet, and perhaps more especially with the admirable police service, the officers of which appear to be everywhere, and spare no trouble in making things easy for wanderers in unknown thoroughfares. We have had a peep at the noisy Stock Exchange, with its atmosphere of intense excitement; and by way of contrast, and for the sweet benediction it would bring us, we attended the midday service at old Trinity, lasting just half an hour, and crowded to the doors, not only with women, but actually with men, who were, in spite of business claims in the midst of a busy day, largely in the majority.

Automobiles are more general here than bicycles, there being no ice, no snow, not even rain, to interfere with their progress. But tempting as it is to do so, I must not linger in New York. The readers of THE FARMER'S ADVOCATE shall from time to time get Notes of Travel from me, from one or other of the many places we hope to visit in the Old World. Tomorrow we sail, and alas! I expect to . . . but I won't say what I expect: "Sufficient unto the day is the evil thereof."

It is Fan's first voyage, and I predict that she will walk the deck, eat about six meals a day, go skylarking all over the boat, and probably study astronomy with one of the officers in the evening, whilst I am occupied in other ways below stairs. For the present, then, good-by! MOLLIE.

THE QUIET HOUR.

An Old Legend.

It was the time when our dear Lord Jesus
Had finished His life of love,
And the voice of His Heavenly Father
Was calling to Him from above:

And the cruel soldiers of Pilate
Were searching with eager eye
For something to scourge the Saviour,
Ere they led Him forth to die.

Now, it chanced that there grew a willow,
Not a willow like those we see,
With sorrowful, trailing branches,
But a tall, young, graceful tree.

Whose straight, green branches pointed
To the sky; and sages tell
How the soldiers took them to scourge Him,
For they served the purpose well.

And all through that dreadful hour
When the blows fell thick and fast
On the quivering flesh of Jesus,
Till the blood flowed down at last—

The willow drooped and saddened
Under the grief and pain,
And trailed its long green branches,
Weeping down on the moistened plain.

And all through the many ages
That since have come and fled,
The sorrowing, weeping willow
Has hung its saddened head.

exhibition in Toronto for so many years? The thing that impressed me most in that wonderful picture was the utter indifference of the majority of the people represented. That awful sacrifice on Calvary only attracts the attention of a few. Most of the people within sight of it are too interested in putting up their tents or preparing their meals to be able to spare even a passing glance. Whether the artist who planned the picture intended it or not, it is a solemn parable of the indifference of men in all ages. Surely the appeal has need to ring out still—"Is it nothing to you, all ye that pass by? Behold and see if there be any sorrow like unto My sorrow!"

The doctrine of the Atonement is an awful mystery. We cannot understand how the death of One can win pardon for all. But the Cross of Christ makes two facts very clear. One is the terrible nature of sin, from which we could only be freed at such tremendous cost. The other is the glorious truth of the love of God for men. If our dear Lord was willing to endure the awful agony and shame of that "darkest hour that ever dawn'd on sinful earth" because He loved us, we can never doubt that love, even when He gives us also heavy burdens to carry. It is hard to bear severe pain patiently, even when we can't help ourselves; but think of the wonderful love of Christ! He laid down His life freely and willingly, enduring to the uttermost for us.

"The Village Politicians."

This picture was Wilkie's first step out of struggling obscurity into the sunlight of fame. Art has often proved a hard mistress to her apprentices, even to those of the fairest promise, and Wilkie experienced the full weight of her hand in no pleasant mood; but his Scotch pluck and endurance carried him through her harsh discipline with undaunted spirit, and to him, as to all who can achieve work of worth and wait its due with prudence and endurance, came honor and wealth in good time.

Wilkie had a rough study of this picture by him, which attracted the attention of Lord Mansfield. This nobleman asked the price of a finished picture from the sketch. Wilkie answered fifteen guineas; but no more was said about the matter. At the chance of acceptance, however, Wilkie went to work and produced the masterpiece. His artist friends were delighted. Jackson, one of them, brought his work to the notice of Lord Mulgrave and Sir George Beaumont, two of his own patrons, with a free-hearted appreciation which does honor alike to his heart and his judgment. He represented Wilkie as "A young Scotchman second to no Dutchman that ever bore a palette on his thumb." Sir George Beaumont was the great art authority of his day, the giver of reputations, though some of his dicta that have been recorded cast but a dubious light upon his judgment. He



By Sir David Wilkie.

"THE VILLAGE POLITICIANS."

Good Friday.

"Mortal! if life smile on thee, and thou find
All to thy mind,
Think, Who did once from heaven to hell descend
Thee to befriend?
So shalt thou dare forego at His dear call,
Thy Best—thine All."

If a stranger from a far country, knowing nothing of our religion or our customs, should visit us, he would naturally be interested in our public holidays. He would be told that on the fifth of April, this year, all the places of business would be closed, and the railroads would have special holiday rates. On finding that Good Friday was annually kept in remembrance of the death of One who had given His life for us, he would naturally expect some outward signs of that remembrance. Much to his surprise, he would see crowds of people spending the hours in jollity and amusement, with apparently no thought of the reason why that day in particular was set apart by the law of the country as a holiday or *holyday*. Three of our annual public holidays—Christmas, Good Friday, and Thanksgiving Day—witness to the fact that, as a nation, we acknowledge and adore our rightful Sovereign. We live in a Christian country; but how much practical heathenism is found in it! How many, who keep Good Friday as a holiday, entirely forget the reason for its observance!

Have you ever seen the eye-balm, "Jerusalem on the Bay," the "Jerusalem," which has been on

"Thou know'st He died not for Himself, nor for Himself arose; Millions of souls were in His heart, and thee for one He chose. Upon the palms of His pierc'd hands engraven was thy name; He for thy cleansing had prepared His water and His flame."

Think of the human craving for human sympathy shown by our Lord in Gethsemane. Remember how disappointed He seemed when the disciples failed to give it. How sadly He says: "What, could ye not watch with Me one hour?" Is He not "the same yesterday, to-day, and forever"? Surely He feels our careless indifference now.

Oh!—shame beyond the bitterest thought
That evil spirit ever framed,
That sinners know what Jesus wrought,
Yet feel their haughty hearts untamed;
That souls in refuge, holding by the Cross,
Should wince and fret at this world's little loss."

HOPE.

The Morning Hour.

Dean Farrar tells us that his mother's habit was, every morning after breakfast, to withdraw for an hour to her own room and to spend the hour in reading the Bible and other devotional books, and in meditation and prayer. From that hour, as from a pure fountain, she drew the strength and sweetness which enabled her to fulfil all her duties and to remain unruffled by the worries and pettishness which are often the intolerable trials of narrow neighborhoods. Her life was very strong, pure, rich and full of blessing and healing. And it was all due to the daily morning hour spent with God in the place of prayer.—*Morning Star*.

had, however, taste and discernment enough to perceive Wilkie's talent. He gave his valuable approbation to "The Village Politicians," and became a generous friend to its creator. Hayden's account of the introduction of this picture to the public has a little side hit at the friendly Sir George, which may perhaps illustrate that good nobleman's style of criticism. "The winter of 1806 approached," he writes, "and Wilkie began to make a great noise. Sir George described him as a young man who came to London, saw a picture of Terrier's, went home and at once painted the 'Village Politicians.' At once! My dear Lady Mulgrave—at once! And off all crowded to the little parlor of eight Norton Street, to see the picture painted by the young Scotchman who never painted a picture or saw one until the morning when he saw the Terriers, and then rushed home and produced the 'Politicians.'"

"The Village Politicians" became the center of attraction at the Academy exhibition of the year when it was produced. A very appreciative article on the picture appeared in a leading organ of the time. The impulsive Hayden was one of the first to see it, and rushing off to Wilkie's studio, he encountered Jackson on the way. Together they burst in upon the startled Scotchman with the glorious news. "I roared out," said Hayden, "Wilkie, my boy, your name's in the paper!" "Is it real-ly?" said David, and, finding that it "real-ly" was, the three took hands and danced round the table till they were

tired. The fortunate originator of the art sensation of the year went with his two enthusiastic friends to gaze upon the crowds that did homage to his work, and the only expression he could give to his bewildered delight was "Dear, dear, it's just wonderful!"

The Earl of Mansfield does not appear to much advantage at the end of the story of "The Village Politicians." As soon as the picture became famous, he wrote to the artist, claiming it at the price of fifteen guineas, which Wilkie had named on the occasion of his visit. To this the artist, not unjustly, demurred, as the offer had not been accepted. A good deal of cavilling followed, ending with the nobleman obtaining, with little credit to himself, one of the masterpieces of the British School for thirty-one pounds ten shillings, or some hundred and fifty dollars.

On Growing Pains.

As a heading for another little talk upon home topics, I think the one I have chosen as adaptable as any—indeed, more so perhaps, because there are growing pains mental, moral and spiritual, as well as physical, and we can hardly touch on any phase of life in any home, be that home where it may, without recalling the twinges suffered from time to time as, in the natural course of events, the old order of things passed away and we had to readjust ourselves to the new which came to replace them.

These pains may be considered as milestones marking our gradual growth and progress. While they were few in the early stages of our life's journey, how large they looked, how interminable a distance off the next one seemed to be, and how impatient we were of the little obstacles which intervened before we could reach it. Who cannot remember going to mother with the childish complaint of a pain here, there or "I don't know where, but I think 'tis all over me," and the comfort of her reply—"Never mind, my dear, it is just a growing pain—a sign that you are getting a big boy or a big girl," as the case might be. Well, that made the pain bearable, for the baby boy longs to be as big as his schoolboy brother, and the schoolboy longs to be a man, to leave his school desk and his playground for the arena of a man's career. The toddling girl has her aspirations, too, and talks of what she will do when she has grown "as big as sister," the sister, on her side, probably not being without her dreams of what the future has in store for her as maiden, sweetheart and wife, in the by-and-by for which she almost unconsciously longs. And has the mother no vicarious growing pains as the little ones pass through the various stages of their growth and development. Does it not cost her a pang when the ruthless shears sever the curls from the head of her baby boy, or when he steps bravely forward in the full glory of a knickerbocker suit, never again to put on the dainty little baby garments in which he looked so "cunning" and so lovable? Has she no regret when the little daughter has her hair "done up" and her skirts "let down," and from the frolicsome girlie, whose high spirits were sometimes hard to curb, has emerged the staid and sedate young lady in her later teens. How would the mother bear these vicarious growing pains if she did not realize that there was a rich compensation to follow them? She knows that the joyousness and freshness of a happy childhood must needs pass away, that there must be a change in the very nature of the tie between parent and child; that it may not be good for that child always to have the rough places made smooth for its feet; that it has to learn its own life's lessons by personal experience if ever it is to attain to the full measure of the stature to which it has unconsciously and almost imperceptibly been attaining from the moment of its birth. And have the old no growing pains, think you? Does it not cost some of them very dearly to feel their weakening powers?—to drop one by one the duties which have been theirs so long?—to recognize how easily the world can spare them after all, and that when they pass off life's stage, others will take their places, almost, but not quite, as if they had never been? To some it costs a positive pang to face the truth-telling mirror upon the wall, which will not spare them a single wrinkle. But not so with all. Life has taught them many a lesson, and amongst them a clearer sense of proportion, the "reason why" of so many of the difficulties which have beset the path over which their weary feet have travelled, and the recognition of a truth which sounds somewhat paradoxical, "that if there is loss in gain, so also there is gain in loss."

Growing pains being a natural accompaniment of growth, let us recognize their educational value and turn them to their best account. A good twinge or two may not do us any harm. New duties may find us so set in our old habits that it is hard to unstiffen our joints and set to work in unaccustomed grooves. To readjust ourselves to fit our task may cost us some pain, but it can be done by a determined will. Have we been censorious and rather inclined to enjoy the discovery of notes in our brother's eye? It may come hard with us to own up to the beam in our own eye, but, by God's grace, it can be done, and the pain of the growing self-knowledge will not come to us in vain. Have we been selfish or niggardly, caring for our own comforts and unmindful of the Lazarus at the gate. Oh! to grow out of the entanglement of that most insidious of all human weak-

nesses must be at the cost of a cruel wrench, for that "it is more blessed to give than to receive" is no mere formal aphorism, it is a heaven-taught experience, often learned through sacrifice. The whole subject is capable of amplification and of almost indefinite enlargement, and as to illustrations, creation teems with them. They will not be far to seek by the observant reader of the *Advocate*, whose life is spent amongst surroundings where nature teaches her own beautiful lessons without need of comment by human pen or tongue; but, for readers in town or country alike, we would quote the words of a writer in "Great Thoughts" as giving the pith of the whole matter. He says: "Every change means giving up the old to grasp the new. We cannot grow without letting something die. Every advance we make into new scenes, new relationships and new responsibilities, means the giving up of something that was dear for the sake of something that we covet more. Progress has always its accompanying pains, and every enlargement of thought and experience its added new cares and sorrows." H. A. B.

THE CHILDREN'S CORNER.

My Dollies.



Up, my dollies, one, two, three,
I must bathe you all, I see,
Dollies of china, wax, and wood,
Let me beg you to be good!
Don't cry at the soap, and don't kick at the rubbing;
Dollies, you know, are the better for scrubbing!
Big Mabel, shall it be your turn first?
No, for I think the sawdust has burst.
Or you, Miss Belle, with the curly hair;
Or Rosalinda, pink and fair;
Or little black Judy, lying there,
Looking about with a queer glassy stare.

A Sermon on Politeness.

We have had a good many stories lately, so I am going to preach a little, to-day, just for a change. Oh, yes, I know you don't care much for sermons; but we can't always get what we like—what spoiled babies we should be if we could! This sermon is not for you unless the cap fits you.

Some boys and girls are very polite indeed to visitors, but they take off their company manners with their best clothes. They speak rudely to their brothers and sisters, interrupt their elders, and keep on jangling at every meal as if they were a lot of brass bands gone crazy. I have heard of at least one of these children who

"Wouldn't be polite;
Wouldn't say 'Good-morning,' and wouldn't say 'Good-night';
Felt it too much trouble to think of saying 'Please';
Slammed the door behind her as if she'd been a breeze;
Wouldn't do the things she knew she really ought to do.
Who was she? Oh, never mind, I hope it wasn't you."

Some boys seem to think that rudeness—especially to their sisters—is manly, which it certainly is not. When our present King was a boy, he was one day riding with his father across a toll-bridge. The keeper respectfully saluted them as they passed. Prince Albert acknowledged the salute by touching his hat and bowing, but the Prince of Wales, boy-like, dashed on without noticing the toll-keeper. His father called him and said: "My son, go back and return that man's salute." One great secret of Queen Victoria's popularity was her unflinching courtesy to rich and poor. (And that reminds me, you had better hurry up with your essays, for the competition closes April 15th.)

The greatest men have generally been very careful not to hurt anyone's feelings by unnecessary rudeness. It is said that the Duke of Wellington's last words were, "Yes, if you please." They were spoken to a servant who asked him if he would have a cup of tea. Even in the weakness and pain of death, you see, he did not forget the habit of politeness which had become almost second nature. A true gentleman is never rude to ladies, old or

young—especially to the ladies in his own house—and if you boys don't begin to be gentlemanly now, you probably never will be.

A gentleman once met a little girl who was carrying a very big baby. "Baby's heavy, isn't he, dear?" asked the gentleman. "No," replied the child, "he isn't heavy; he's my brother." I am afraid most of us don't feel it such a pleasure to do anything for our own family; we are apt to be more willing and obliging when working for visitors.

One thing more—remember that politeness is a very poor article unless it is cheerful. It is hardly possible to be really kind and obliging with a face as black as a thunder-cloud.

"Does anyone like a lowering cloud
As well as a shining light?
Does a peevish word have power to please
Like a laugh that is sweet and bright?"
"Oh, the girl that is gloomy, with fretful scowls,
Though she dresses in silk and lace,
Hath never such art to charm the heart
As the girl with the smiling face."
"Dear boys and girls, remember this
You are apt to meet with loss,
No matter what thing you undertake,
When you're sullen, and sour, and cross."
"Dear boys and girls, I would say it thrice,
'Twill help you in every case,
If you'd win success and the world would bless,
You must wear a smiling face."

COUSIN DOROTHY.

Recipes.

ORANGE MARMALADE.

One dozen oranges, 6 sweet and 6 bitter; the juice of 6 lemons; 3 quarts of water; 8 lbs. sugar; slice oranges, raw, very thin, remove all seeds. Turn water into it and let stand 24 hours. Then boil two hours, add sugar, boil 1/2 hour longer. Add wineglass of whiskey to clarify it when putting in sugar. Put in small pots or pint self-sealers and it will keep for years.

BATTER PUDDING.

One pint flour; 2 teaspoonfuls baking powder; a little salt and milk enough to make a rather stiff batter; place fruit in dish, then pour over it the batter. Steam 20 minutes. Serve with cream.

STEWED APPLES WITH RICE.

Pare and core some large russet apples, and place in a saucepan with sufficient water to cover them. Let them simmer gently until tender. Cook some rice with milk and turn onto a dish, put the apples on it and fill the spaces between them with more rice. Place in the oven until light brown.

Rothschild's Maxims.

The elder Baron Rothschild had the walls of his bank placarded with the following maxims, and they are worth copying into our young folks' school exercise books:

- Shun liquors.
- Dare to go forward. Never be discouraged. Be polite to everybody. Never tell business lies.
- Employ your time well. Be prompt in everything.
- Pay your debts promptly.
- Bear all troubles patiently.
- Do not reckon upon chance.
- Make no useless acquaintances.
- Be brave in the struggle of life.
- Maintain your integrity as a sacred thing.
- Never appear something more than you are.
- Take time to consider, and then decide positively.
- Carefully examine into every detail of your business.
- Then work hard, and you will be certain to succeed in life.

The Interest of Weddings.

Girls love weddings. Why should they not? It is a curious experience to them. Their minds are full of the great theme; they tenderly record each incident; they can think of nothing else; and they tell each other a thousand times how the bride looked, and how the travelling dress became her.

Not otherwise than when a covey being dispersed, men go round and shoot the straggling birds, so admirers might easily win the hearts of the fair who are still hovering wistfully round the memory of a wedding. Thus Nature has provided chances for bridesmaids; and thus the superstition that it is unlucky to be often a bridesmaid is justified. For if a maiden can survive heart-whole, and pass unscratched through these moments of sympathy, it is certain that she will never be won, because of her hardness of heart.

Humorous.

Sunday School Superintendent—Who led the children of Israel into Canaan? Will one of the smaller boys answer!
[No reply.]
Superintendent (somewhat sternly)—Can no one tell? Little boy on that seat next to the aisle, who led the children of Israel into Canaan?
Little boy (badly frightened)—It wasn't me, I—I just moved here last week from Mizzioury.—*Chicago Tribune.*

"When I was once in danger from a tiger," said an old East Indian veteran, "I tried sitting down and staring at him, as I had no weapon."
"How did it work?" asked a bystander.
"Perfectly; the tiger didn't offer to touch me."
"Strange! Very strange! How did you account for it?"
"Well, sometimes I've thought that it was because I sat on a high branch of a very tall tree."

GOSSIP.

Cartwright Agricultural Society will hold a plowing match early in July. The Society is hustling to get a grist mill in the town, and has now raised \$2,300 towards a bonus.

To supply the horse power for the wheat farms of Manitoba and Assiniboia, no better animal can be got than those bred on the ranges of Alberta, from stallions of the draft breeds. They are hardy, tough, and easily broken. In this issue, Mr. A. H. Eckford, of the High River Horse Ranch, High River, Alta., advertises horses of this class for sale. Write him for quotations on teams or carload lots.

Considering the reputation as live-stock men enjoyed by Britishers, we were not surprised to find James Stancombe, of Cartwright, engaged in the project of building a small but select herd of Shorthorns. Feed, however, was scarce this year, and although enjoying a reputation as a feeder, the owner informs us he has not his cattle up to the usual standard. A flock of sheep is now with the lambs at foot, and aid in fulfilling the purpose of the owner to be more than a mere grower of grains—to be a farmer in fact.

During a trip along the Pembina branch of the C. P. R., a call was made on Mr. J. J. Ring, Crystal City, one of the present Farmers' Institute staff. The Ring homestead is prettily ornamented with trees, and contains a few Shorthorns in the herd. Gladness, the red two-year-old, of the Matchless family, is a deep heifer with good ends, and is a good handler. A red Strathallan cow, a heavy milker, was noted, as also was some young stock by Mr. Greenway's stock bull, Judge. A few Poland-Chinas of Trann's breeding are kept, also some thoroughbreds by Albert Victor. A De Laval separator takes care of the milk of the herd. A specialty of the owner might be said to be an insistence in a rotation which includes grass.

The Boundary herd of W. L. Trann, Crystal City, Man., contains individuals representing Poland-Chinas, Tamworths and Chester Whites, the Poland-Chinas being the strongest numerically. Lady Sanders, a big, lengthy, heavily-hammed sow, is a good representative of the Poland-China breed. Klondike Gold Dust, the P. C. boar, is a lengthy pig, with good hams and strong bone, and stands well up on his toes. Other brood sows of this easy-keeping breed were seen: Shanner's Choice, a sow with considerable quality; Roxy Star, and Carrie Nation, deep, lengthy sows, of good, even width. Some of the sows especially showed the thickness, depth and neatness so characteristic of this breed. In order to accommodate his many patrons, Mr. Trann is breeding Tamworths, among which is the first-prize sow at Brandon last year, Copper Queen, a deep, lengthy sow, soon due to farrow. The boar, Hayfield Pride, is a vigorous, lengthy specimen of the breed. A few Chester Whites were also seen, of good form and easy-keeping qualities. Persons wanting brood sows or boars of the above-mentioned breeds should write Mr. Trann for prices.

South of Brandon, some thirteen miles, Wm. Chalmers has a herd of Shorthorns, representatives from which have already won prizes in some of the provincial showings. Aberdeen 2nd, a massive red bull, has been at the head of the herd for some time. His place, however, is about to be taken by the Dutch bull, Banks o' Don (imp.), a red-roan, by Banks o' Ry, tracing to Gravesend, Sittyton Fame, and other well-known sires. Among the females is a red cow by Golden Crown, of the beef type, with good ends. A roan cow of considerable merit, by Aberdeen (imp.), with a calf at foot by Golden Measure, was also noticed. A red cow, a regular breeder and of considerable milking ability, was shown us as the foundation of the present herd. Several young bulls of serviceable age were also noticed, and our representative was informed that demand for bulls was very good.

An inspection of Manitoba's studs, flocks and herds would be incomplete unless one visited the Roxy Stock Farm of J. A. S. Macmillan, Brandon. The stock of Clydesdales has been seriously depleted by sales, namely: Pilgrim (700), by MacLure (imp.), a sire and a winner, to Menzies Bros., Shoal Lake, where he will doubtless be of great service; Glenbuck (imp.), the bay two-year-old, by Montrava sentinel by Prince of Albion, also goes to the Northwestern district. Both horses have the best of feet and limbs. Royal Union (imp.), by Royal Gartley, a very taking horse, bay in color, with a little white on the off ankles, goes to Isaac Henderson, Methven. The bay Macgregor horse, imp. Garland, goes to John C. Cowan, Gain-boro, Assa, and with his ancestry cannot fail to be a satisfactory sire. T. Kelly, of Routhwaite gets the brown horse, Scotland 272, by imp. Lord Randy, out of imp. Bessie Lee, and he has got a horse that should be a money-maker. A. Douglas, Brandon, has taken the noted Farndale Hero, the rich bay imp. Cleveland stallion. There yet remains in the stud such horses as Cavendish, who attracted considerable attention at the late Chicago show, with the best of breeding, having such sires in his ancestry as Prince of Albion and Prince of Wales 063. We predict he will not long remain in Mr. Macmillan's hands. Hillocks, the bay Macclinker horse by Macgregor, should prove a good stock-getter. The flashy brown two-year-old Prince Bonnybridge, by Prince Patrick, out of Marjory Macgregor, will doubtless be heard from in the show ring. The three-year-old Prince Burnbrae, a brown horse by Clan Buchanan, out of a mare by Prince Patrick, was also seen. A very attractive-looking colt is Baron of Avenor, light bay in color, with white fore feet, mane and tail. The brood mares are all worked, and bred regularly. A half-sister to Pilgrim, Jenny Jane, was seen also her foal, a prize winner. Minetta, the second-prize two-year-old at Winnipeg, sired by Pilgrim, and in foal to Burnbrae, goes to Frank Woodcock, of Chatter. Phyllis and Gretchen are by MacLure, and are of a good, useful type. The youngsters are all of good promise. At the home-stand is the number of a Shorthorn herd, a red bull calf of good measure especially calling for attention. By the sheep pens are to be seen Shropshires, by the sheep pens, occupation is that of breeding generally. The faces of mutton type into the head with later dispose themselves on the white cover and Kent, the blue cross, are also noted for them. The boys combine, and are of good satisfactory type. The boys are well pampered, and are even better than the imported range-bred ones.

Some Plain Facts About the CREAM SEPARATOR AWARDS AT THE PARIS EXPOSITION.

THE very nature of the cream separator business is, perforce, productive of fraudulent claims and misrepresentation of facts. In the first place, every would-be competitor of the De Laval machines has virtually stolen the ideas which they employ in separator construction, or else appropriated them from the original patents which expired several years ago. In the second place, if the would-be competitors of the De Laval machines were to stick to the truth in the claims made for their machines, they would not sell one in a month at any price, as each of them knows and will privately concede the overwhelming superiority of the modern De Laval machines, which protecting patents prevent them from duplicating in principle, and low price together with small sales make it impossible for them to approach in quality and durability of construction.

Hence, there is nothing strange in the misrepresentation and contortion of facts respecting the Paris Exposition awards upon separators, and the misrepresentation in this regard is fairly illustrative of that practiced in other respects in practically every separator circular or advertisement put out.

There were five grades of awards at the Paris Exhibition: 1st Grand Prize, or highest award, which was confined to one or two exhibits of undoubtedly superior excellence and great usefulness in each class; 2nd Gold Medal; 3rd Silver Medal; 4th Bronze Medal, and 5th Honorable Mention—all of these awards below the Grand Prize being awarded rather for the novelty and attractiveness of the exhibit rather than as a testimonial to the excellence of the device or article itself, as in the case of all large expositions.

Only two Grand Prizes were awarded to cream separators—one to the De Laval machines and the other to a duplication of the De Laval machines, made under another name, but not known or on sale in this country or in any other where the De Laval "Alpha-Disc" machines are patented.

The lower awards were a Gold Medal to the "Sharples" and "U. S." machines, together with two makes of foreign separators; a Silver Medal to five makes of foreign machines; a Bronze Medal to the "American" separator, and Honorable Mention to one foreign make of machine.

One of our competitors was advised by the Department of Agriculture, at Washington, that "a" cream separator sent to Paris by him had received "a" gold medal, and ever since he has been advertising and circulating what purports to be a copy of this letter so garbled and virtually forged as to read that "the" cream separator sent by him had been awarded "the" gold medal; while in addition he has also advertisingly referred to it at times as the "Grand Prize."

Another competitor publishes the fact of their having received a Gold Medal at Paris in conjunction with the cut of a cup won by some buttermaker at a State fair over a year ago, together with the assertion that the prize they received was the highest award made to any cream separator "manufactured in the United States." This is a technical contortion of the fact that the European De Laval machines are made in Europe, though precisely identical in principle and construction with the American-made ones, the American machines being considered superior in finish to the European-made ones.

Another competitor advertises the claim of having "captured" the "only" Grand Prize awarded at Paris to a separator of "purely American manufacture," with no other foundation than the fact that a machine of similar construction to the one in question, but made wholly in Europe and under a different name, was a small part of a general creamery and dairy apparatus exhibit made by a French creamery supply house, which collective exhibit was awarded such a prize.

In conclusion, it is interesting to note that the De Laval Working Dairy at Paris was awarded a Gold Medal, in addition to the Grand Prize to the De Laval Cream Separators, and that the only Grand Prize award to American-made butter was to Sam'l Haugdahl, of New Sweden, Minn., a well-known user of a De Laval machine.

THE DE LAVAL SEPARATOR CO.

Western Canadian Offices, Stores and Shops:

248 McDERMOT AVE. - - WINNIPEG, MANITOBA.

CHICAGO.

NEW YORK.

MONTREAL.



The Manitowish Creamery is likely to run this season, Mr. T. Gault having leased it for a term of years.

Barred Rocks are entitled to the premier place in Brandon hatching, and Mr. Thos. H. Chambers is probably entitled to the kingship of that principality, owing to the fact that among his subjects he numbers many birds scoring 99 points and upwards at the last poultry show. Minorcas and Wyandottes, of good quality and individual excellence, are also to be seen. Eggs from high-class birds of Schwab and Thompson breeding are to be had, see Mr. Chambers' advertisement. The demand is brisk, but early orders will get the eggs.

GOSSIP.

That noted herd of Herefords owned by J. E. Marples, Deleau, was recently visited by our representative. Among the poplar bluffs are to be found commodious buildings and appointments fitted to minister to the wants of the 100 or more head of pure-breds. No introduction is necessary to our readers, as the Poplar Grove herd has made its provincial fame, in Winnipeg, Brandon, and other provincial fairs, and while scarcity of feed is the general cry, this herd is kept up in good breeding condition. At the time of our visit, A. J. McArthur, a ranchman of Calgary, was there and bought 10 head of first-class young bulls for the Western trade. Among the lot is Rex of Ingleside, a deep two-year-old, of Corrector breeding. This bull has a good skin and strong, square hind quarters, and should be a getter of stock of high-class beef quality. The others are typical young bulls, ranging in age from 12 to 18 months, even in form, short on legs, thick in good thrifty condition, and with a tendency to carry a wealth of flesh in those parts from which are obtained the high-priced cuts. This bunch should have a good effect in improving the range cattle. The herd females are breeding regularly, some of them being of show-yard fame. Julia Madge, a daughter of the sixteen-year-old imp. Millie, and Prairie Queen, a lengthy, typical two-year-old, would attract attention in any feed lot. A very good heifer is Spot of Poplar Grove, being a stable mate, Countess of Poplar Grove, being not far behind. The yearling Matchless is a good one, with strong hind quarters, her mother, Gay Lass, being a typical one of the breed. A smooth one, of beef type, is Isabel; a very taking heifer is Loretta—thick, deep, and of prizewinning ancestry. Spotless of Ingleside, that well-known sire, deep, of great length, and wonderful hind quarters, is solid, and should prove a good investment for a few of salable age being left. The new bull to head the herd is the fifteen-month-old Duxmore of Ingleside (Judge stock), by Mark Hanna, the Chicago winner, the dam of the bull being imp. Duxmore Brenda, a winner through the Eastern shows last year, who weighed 2,000 lbs. at three years old. Constance of Breezelawn, that smooth prizewinner, good in the crops, with good loin and quarters, is still a member of the herd. Mr. Marples reports inquiries for stock very brisk.

McMillan Bros., of Westbourne, recently imported from Missouri two carloads of mules, big, strong, powerful fellows, one team weighing 3,300. They are mostly for their own use, but included in the lot were two Jacks which will stand for stud purposes on the Portage Plain during the season.

THE PRAIRIE HOME HERDS AND FLOCK.

In the district of Crystal City one cannot help but remark the exceptional character of the live-stock, which is not to be wondered at when the proximity of the Prairie Home Stock Farm of Hon. Mr. Greenway is taken into consideration. On that farm the commodious barns and stables are always filled with high-class stock, Shorthorns and Ayrshires, Yorkshires and Berkshires, Shropshires and poultry are to be found there in numbers. At the head of the Shorthorns is the noted roan bull, Judge, whose progeny are also making reputations for themselves. Imp. Jubilee, the red bull of showyard fame, is assisting and is too well known to need comment. Among the females were noticed Matchless 19th, the light roan 3-year-old Cleopatra, the red Starling, and that typical old Shorthorn cow, Roan Mary, low-set and thick, with the skin of a good feeder. She has twin heifers by Judge, of more than ordinary merit. Autumn Rose, a long, low, blocky 3-year-old; the roan cow, Vanity, in good condition despite the fact that she has had no grain this winter; Marina (imp.), a low, thick-set heifer, and her stable mate, Village Princess, a long-quartered, light roan heifer, were also seen. That big, sappy cow, Begonia, and her promising son, Grandeur, second-prize bull in his class at Winnipeg; and the old Matchless 11th, a cow with a well-covered loin and back, were also well in evidence. Among a pretty good bunch of bull calves, a red and white by Sir Colin Campbell, and a white by Judge, were particularly noticeable. Matchless 11th's red heifer by imported Jubilee has only to be seen to be admired, all bearing testimony to the care of that veteran stockman, Jas. Yule. Among the pigs, the lengthy Berkshire boar, Victor, of bacon type, at once demands attention. The Yorkshires number not a few, there being a large number of good brood sows well along in pig. In the sheep sheds, matrons with lively, thrifty lambs of true Shropshire type were to be found. Time or space at command will not permit one to dilate on their excellencies on this occasion.

Valuable Premiums!

These very liberal premiums are given our subscribers for sending us
NEW SUBSCRIBERS,
accompanied with the cash.

No subscription must be taken at a less rate than

\$1.00 PER YEAR.

EVERY farmer who reads the FARMER'S ADVOCATE is benefited many times the subscription price. No better time than now to get new names.

"Post" Fountain Pen

SOMETHING THAT EVERY MAN, WOMAN, BOY AND GIRL NEEDS.

It is a wonderful tribute

to the greatest invention in fountain-pen construction of the age.

THE PRICE OF THE POST IS **\$3.00**. IT CANNOT BE PURCHASED UNDER THIS PRICE ANYWHERE.

The patentee has a hard-and-fast agreement with the trade and agents that \$3 shall be the lowest retail price. By a special agreement we are in a position to make

A Great Offer: We will send one of these pens to anyone who sends us three new subscribers, accompanied by \$3.00 in cash.



General Lew Wallace, the author of the greatest book of the age, "Ben Hur," also "Prince of India," "Commodus," etc., says in a letter in his own handwriting:

"The fountain pen, Post, was received, and I have taken the liberty of trying it thoroughly. Please accept the excuse for failure to acknowledge sooner.

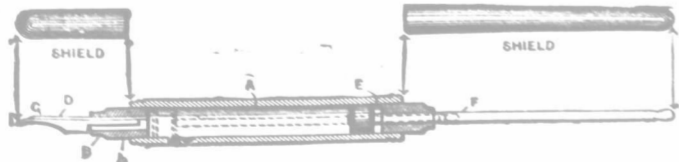
"I have tried every pen of the kind on the market, and now unhesitatingly give the preference to the Post. It not only feeds itself with less care, but has the immeasurable advantage of re-supply without inking the fingers. I do all my work with it."

Lew Wallace.

To show our confidence in this pen, we will send you one on trial for a week upon receipt of \$1.00, which, if not entirely satisfactory, you can return to us and we will refund you the \$1.00 paid us. If satisfactory, you must send us the names and addresses of the three new subscribers and \$2.00 additional cash.



THE only self-filling and self-cleaning pen manufactured in the world. To fill the pen, put the nib in water and draw the piston rod up. To clean, put the nib in water and draw the piston rod backwards and forwards a few times.



A, Barrel; B, Nozzle; C, Pen; D, Feed; E, Plunger; F, Rod.

The world's greatest singing evangelist, who has thrilled thousands and tens of thousands, now raises his voice in praise of the Post Fountain Pen.

Mr. Sankey sends the following characteristic letter: "I have used the Post pen for some time, and have had great satisfaction with its use. It never fails or gets cranky. One can at least have clean hands by using the Post, whatever the heart may be."

Frank Sankey.

ADDRESS—

The Wm. Weld Co., Ltd., Winnipeg.

Want a Good Watch?

WE have succeeded in procuring from one of the most reliable jewelers in Canada a complete list of Gents' and Ladies' Watches of sufficient variety to suit every one, and have no hesitation in recommending them to our readers as premiums worthy of an effort to secure. These are not by any means trashy goods, but first-class in every particular, and we assure you that you will be pleased with whatever of the above premiums you may obtain. Let us hear from you at an early date with a good list of new subscribers accompanied by the cash, and take your choice.

Gents' Watches.

No.	Description	New Subscribers.
No. 1.	Yankee Nickel Watch	2
No. 2.	Trump Nickel Watch	4
No. 3.	Trump Gun Metal Watch	5
No. 4.	No. 11 Silver Watch	8
No. 5.	7 Jeweled Gent's Elgin in 3 oz. Nickel Case	10
No. 6.	7 Jeweled Gent's Elgin in Gun Metal Case	11
No. 7.	7 Jeweled Gent's Elgin in Sterling Silver Case	14
No. 8.	7 Jeweled Gent's Elgin in 20-year Filled Case	18
No. 9.	7 Jeweled Gent's Elgin in 25-year Filled Case	21
No. 10.	15 Jeweled Gent's Elgin in 3 oz. Nickel Case	15
No. 11.	15 Jeweled Gent's Elgin in Gun Metal Case	15
No. 12.	15 Jeweled Gent's Elgin in Sterling Silver Case	18
No. 13.	15 Jeweled Gent's Elgin in 20-year Filled Case	21
No. 14.	15 Jeweled Gent's Elgin in 25-year Filled Case	25

Ladies' Watches.

No.	Description	New Subscribers.
No. 15.	Gun Metal Swiss Chatelaine	4
No. 16.	Sterling Silver Swiss Chatelaine	5
No. 17.	Nickel American O. F., large size	5
No. 18.	Gun Metal American O. F., large size	5
No. 19.	Nickel, small size	9
No. 20.	Gun Metal, small size	10
No. 21.	Sterling Silver, small size	10
No. 22.	7 Jeweled Elgin in 20-year Filled Hunting Case	20
No. 23.	7 Jeweled Elgin in 25-year Filled Hunting Case	22
No. 24.	15 Jeweled Elgin in 20-year Filled Hunting Case	23
No. 25.	15 Jeweled Elgin in 25-year Filled Hunting Case	25

Description of Watches.

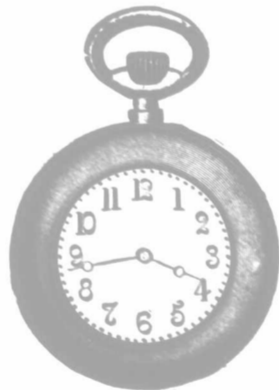
The accompanying cuts fairly well represent all the Ladies' and Gents' Watches, and a description of each as numbered is as follows:

No. 1. American Nickel Key-wind Boy's Watch that is absolutely guaranteed to keep good time and give satisfaction.

No. 2. Gent's Nickel American O. F. Watch; stem wind, and push-in stem and turn to set hands. This is a very strong, reliable Watch.

No. 3. Same as No. 2, excepting that it has Gun Metal case instead of Nickel case.

No. 4. Is a smaller-sized Gent's Watch, has sterling silver case, O.F. Screw Back and Bezel; stem wind, and push-in stem and turn to set hands. This is the lowest-priced and most reliable Boy's or small Gent's Silver Watch that is on the market.



No. 5. Is fitted with 7-Jeweled Nickel, first-quality Elgin movement. The case is a 3-oz. O. F. Nickel case; stem wind and set; screw back and bezel case.

No. 6. Same movement in Gun Metal or Black Steel screw back and bezel case.

No. 7. Same movement with Sterling Silver O. F. screw back and bezel case.

No. 8. Same movement in 20-year guaranteed Gold Filled O. F. screw back and bezel case.

No. 9. Same movement in 25-year guaranteed Gold Filled O. F. screw back and bezel case.

Nos. 10, 11, 12, 13 and 14 are fitted in the same style of cases as Nos. 5, 6, 7, 8 and 9; the difference is in the movement, and the movement is 15-Jeweled Nickel, first-quality Elgin movement.

No. 15. Is a small-sized Swiss O. F. Gun Metal Chatelaine Watch.

No. 16. Is the same, only with Sterling Silver case, which can be had nicely engraved.

Nos. 17 and 18 are a good-quality American Watch, O. F. stem wind, and push-in stem and turn to set hands. These are a little larger than the usual Ladies' Watches, and are smaller than the usual Boys' Watches, though can be used for either Boys, Girls or Young Ladies.

Nos. 19, 20 and 21 are small sized; in fact, are the exact size of cut. These are American Watches, O. F. stem wind, and push-in stem and turn to set hands, and are first-class timekeepers. Will give perfect satisfaction.

If a nice leather wrist case is desired with these watches, send two extra subscribers.

Nos. 22, 23, 24 and 25 are similar to the accompanying cut. These are regular Ladies' Hunting Watches. Nos. 22 and 24 are fitted in 20-year guaranteed Gold Filled cases, nicely ornamented, or to be had in plain or plain engine turned, and the same applies to Nos. 23 and 25, excepting that they are fitted in 25-year guaranteed Gold Filled cases, and 14k Gold Filled; 22 and 23 are fitted with 7-Jeweled Nickel, first-quality Elgin movements. Nos. 24 and 25 are fitted with 15-Jeweled Nickel, first-quality Elgin movements.

When making your choice of Watch as premium, be sure to mention its number as given in premium list, also whether Lady's or Gent's.

THE WILLIAM WELD CO., LTD., WINNIPEG, MAN.



NOTICES.

Seed Barley. Mr. E. L. Drewry, of the Redwood and Empire Breweries, Winnipeg, advises that they are importing from Ontario a quantity of seed barley, which they will dispose of at cost price, about 60 or 65 cents a bushel, in Winnipeg. Write or call on them for particulars and mention the FARMER'S ADVOCATE.

The Winnipeg Creamery and Produce Company has issued a catalogue containing many useful suggestions to those who supply cream to factories. The advantages of the central-factory system are strongly urged, and the claim is made that the Winnipeg Creamery Company draws cream from a radius of 250 miles around Winnipeg.

Poultry Catalogue. Mr. Maw, of the North Winnipeg Poultry Yards, has issued a very neat catalogue descriptive of the utility breeds of fowl kept by him, which include Bronze Turkeys, Toulouse geese, Pekin and Rouen ducks, Barred Plymouth Rocks, White and Silver Laced Wyandottes and White Leghorns. Mr. Maw makes a specialty of these utility breeds, and also handles the Cypress incubators and brooders, bone mills, wire netting, and poultry supplies of all kinds. Write for catalogue, which will be mailed free.

Keith & Company's 1901 Seed Catalogue. We are in receipt of the above catalogue and it is gotten up quite up-to-date. On the inside front cover is an index to vegetable and field seeds, and inside back cover contains an index to flower seeds. Both are of great convenience and lend to the value of this elaborate catalogue. As formerly, this catalogue has every requirement listed in the field, vegetable and flower-seed line. Also, most valuable pointers on the selection of seeds, sowing seeds, true for sowing seeds, hotbed frames, cold frames, transplanting and watering. If you have not one of these catalogues, send your name and address for one. This Company have opened up for this year's business at 479 Main street, Winnipeg, directly opposite the City Hall. Mr. Alex. Keith, the well-known seedsman, is in charge of the business, and under his able directions orders will receive the best possible attention.

GOSSIP.

Wm. Martin reports four more sales of Galloway bulls for the West. The demand has been good for this year. There are at the Hope Farm, St. Jean, Man., several choice bulls and a number of females that will be disposed of at reasonable prices.

The big Clearwater herd of Jos. Lawrence was recently visited by the ADVOCATE representative, who was shown the stock and show bulls, George Bruce, the noted roan, and Jubilee King, the red and white, who promises to develop into a winner. The demand for young stock has depleted the herd, a carload of which will be taken to the Territories before long. Jno. McDougall, Morley, Alta.; Alex. Munroe, Whitewood, Assa.; W. Hutchinson, Ponoka; Jno. Torrance, Boisevain; Wm. Whalen, De Winton, Alta.; Wm. Brown, Gleichen, Alta.; and P. S. Bryan, Killarney, Man., have purchased from this herd. Samuel Briggs, Wood Mountain, Alta., also takes one bull and five heifers, all good individuals. Preparations are being made to increase the stabling accommodation by the erection of a large basement barn, the stone being already on the ground.

Clydesdale Horses for sale.



Three young stallions, bred from the best strains in America and all first-class quality. Also 15 head of first-class grade Clyde geldings, from good grade mares, and sired by imported Clyde horses.

A. & G. MUTCH, Craigmains, Lumsden P. O., Assa.

J. E. SMITH.



J. E. SMITH offers for sale 45 Shorthorn bulls (all aged), a number sired by Lord Stanley 2nd 22260, some imported from Ontario. All this year's crop of Golden Measure (imp.) bulls are sold. 40 Shorthorn heifers, from 6 months to 2 years old. 60 Shorthorn cows, all aged. A few young Clydesdale stallions and Clydesdale mares and fillies of all ages for sale. Everything for sale, except one stock bull, Lord Stanley 2nd and Jubilee King. Write for particulars and the price of the stock. J. E. SMITH, BRANDON, MAN.

For sale: Clydesdales, Shorthorns.

Wm. Martin reports four more sales of Galloway bulls for the West. The demand has been good for this year. There are at the Hope Farm, St. Jean, Man., several choice bulls and a number of females that will be disposed of at reasonable prices.

FARM HORSES For Sale.

Clyde and Shire Bred.

Prices reasonable per carload. Write:

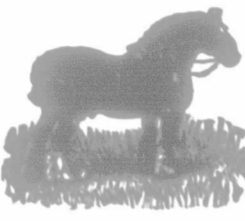
High River Horse Ranch, HIGH RIVER, ALBERTA.

Clydesdales.

Our stud of mares pronounced by competent, unprejudiced judges to be without a peer on the continent. Last year, wherever shown, won an average per head of double the prizes of any competitor. At great Chicago Show, more money than any competitor. For breeding, individual merit and fair prices, we acknowledge no rival. Imp. Percherons, showing size, substance and beautiful conformation. City stable. Telephone to farms. Catalogue on application.

McLay Bros., Janesville, Wis.

Clydesdales and Shorthorns.



Young stallions, bulls, and heifers. Herd headed by Best Yet -14371- and Mint-horn -24084-, bulls bred by Hon. John Dryden and H. Cargill & Son. PRICES ON APPLICATION. D. McBeth, Oak Lake, Manitoba

FOR SALE:

Registered "Klondyke" Guernsey Bull

Three years old. Two first prizes in succession at Winnipeg Exhibition. For particulars and price: P. D. MCARTHUR, 324 PORTAGE AVE., WINNIPEG, MAN.

Galloway Bulls

FOR SALE.

2 2-year-olds and 3 Yearlings

The cream generally comes off first, but in this case it is left to the last. These fine bulls are the pick of the carload brought in last month. Buyers of Galloway cattle cannot equal their quality in Canada. They are all prizewinners. Apply to:

T. M. CAMPBELL, "HOPE FARM," ST. JEAN BAPTISTE, MAN.

BULLS FOR N.W.T.

Arrangements have again been made by the Pure-bred Cattle Breeders' Association of Manitoba where pure-bred bulls will be shipped from Manitoba to the Territories under arrangements with the Territorial Government. Apply to Department of Agriculture, Regina, for conditions, etc. Freight charges only \$3.00 per head. Cars will be dispatched as soon as sufficient animals are booked. The Association can confidently recommend parties desiring to purchase stock to place their orders with Mr. William Sharman, Souris, Man., who will again take charge of the shipments.

GEORGE H. GREIG,

Sec'y Pure-bred Cattle Breeders' Association. ANDREW GRAHAM, President, Pomeroy, Man. NOTE: Breeders should keep Mr. Sharman posted as to stock for sale, etc.

FOREST HOME FARM SHORTHORNS



Cows and heifers, prizewinners at Winnipeg and Brandon Fairs, and others equally good. Yorkshire pigs—a few choice ones of both sexes. B. P. Rock Cockerels—large, strong, well-marked birds. First orders received with cheer.

Carman, C. P. R. Roland, N. P. R. ANDREW GRAHAM, Pomeroy, Man.

IN WRITING

PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

R. G. Spofford, Port Arthur, purchased six bulls of H. McLennan, for the Western trade, all of them Short-horns of good character.

An auction sale of Short-horn bulls in Brandon on March 12th attracted a good crowd, and although the animals offered were in poor condition, they brought very good prices, considering the quality of the stuff offered. Seven one-year-old bulls brought an average of \$70.

In the Cartwright district it is to be found a worshipper at the shrine of the butter-producing cattle, the Jersey. John McKibbin has three head of considerable merit, the bull, Barister of Belvidere, being one of Mrs. E. M. Jones' breeding.

The dispersal sale of the Hackney stud of Mrs. Edmondson, Knowle, Warwickshire, was held March 19th, and 30 lots sold for an average of \$500. The six-year-old chestnut stallion, His Highness, sold for \$1,200, and the two-year-old filly, Knowle Halma, for \$1,170. The six-year-old brood mare, Garton Birthday, by Garton Duke of Connaught, was bought by Sir Walter Gilbey for \$2,100.

K. McIvor, Roslea Farm, Virden, Man., writes under recent date that the demand for native rye grass seed has been remarkable, and he is pretty well sold out. The demand for Shorthorn cattle has also been good with him, he having recently sold four bulls, two cows and two heifers. He is adding to his herd a couple of Shorthorn cows and a calf, and reports stock as wintering well, fully better than average years, although the principal feed has been straw, for which \$1 and \$1.25 has been freely given in the neighborhood of Virden during the winter. The young bull, Strathcona, purchased from the Prairie Home Stock Farm of the Hon. Thomas Greenway, is doing well, and Mr. McIvor says, "We are well pleased with him."

Many a farmyard contains fowls of the dung-hill type, of little use to their owners whether kept for meat or eggs. A rapid and profitable change can be made by the investment of a few dollars in eggs of some of the improved pure-bred varieties of fowl. A new advertiser in our columns, Wm. Anderson, Brandon, offers just such a chance. Eggs from his Minorcas or Andalusians will ensure you laying birds; from his Cochins you can get meat-producing fowl. If you only get one cock from the improvement, noticed in the poultry after his use. Two dollars for a setting is not much, and may mean a small gold mine to the farmer's wife.

Mr. A. Graham, of the Forest Home Farm, Pomeroy, reports business unusually brisk this season. Below is a list of sales made during the month of February: To J. & G. W. Playfair, the following animals: Bertha 11th 1921, one of the aged matrons of the herd, bred by Graham Bros., Ailsa Craig, Ont. The produce of this cow has brought to Forest Home numerous red tickets from Winnipeg and other leading shows. Forest Gem -26885-, a beautiful, low-down, thick cow, of the kind so much sought after. This cow is by Manitoba Chief -20044-, and one of his best. Forest Gem, when sold, had a fine heifer calf at foot by Robbie O'Day -23672-. Forest Home Beauty -2397-, a full sister of Forest Gem, a right good one, that will do her purchasers good. This cow is in calf to Robbie O'Day. Messrs. Playfair also purchased, for use in their herd, the 9-month-old Lord Stanley, bred by J. & W. Russell, Richmond Hill, Ont., and by Lord Stanley, the famous World's Fair winner. From this foundation stock, the Messrs. Playfair should build up a grand herd of useful cattle. To Hamilton & Benson, of Neepawa: Bertha O'Day, a red 2-year-old daughter of Robbie O'Day, in calf to Veracity. Lily White, another 2-year-old daughter of Robbie O'Day, out of a daughter of Manitoba Chief. This is a very choice heifer, that could be made a winner in good company; Crimson Chief, the 8-month-old son of Crimson Rose, 1st-prize 3-year-old heifer at Brandon. To Robert H. Riggs, Thornhill: Red Prince, by Robbie O'Day, dam Manitoba Lass, a Winnipeg prizewinner, by Manitoba Chief. To Robert Stewart, Holland, the roan 2-year-old bull, General Sampson. To T. E. M. Bunting, of Methuen, the young bull, Favourite, by Robbie O'Day, out of the richly-bred shrew, Missie Morton, a daughter of Indian Chief (imp.), and out of imp. Missie Clonmore. To Saunders & Anger, of Carman, a 6-year-old cow, with bull calf at foot. Mr. Graham reports that he still has three young bulls and a few heifers and young cows to spare. The herd is all in good condition, although feed has been very scarce. The stock bulls, Robbie O'Day and Veracity, are both in fine form. Robbie O'Day has improved very much since last summer foals, and if shown this year, will make a very hard bull to turn down.

NOTICES.

Live Stock Journal Almanac.—The publishers of the English Live Stock Journal issue an annual almanac, that usually contains reviews of the various British breeds of live stock for the year, with many special articles and numerous illustrations. The number for 1901 contains fifty such special articles, and it is liberally illustrated with noted specimens of the leading varieties of domesticated animals. The horse comes in for a fair share of attention, while pigs, sheep, cattle, dogs and poultry are dealt with in an informing manner. From information given, it appears that the average price obtained for 579 Shire horses sold during the year was £109 8s. 3d., and for 1,306 Shorthorns, £22 19s. 9d. The exportations of Shorthorns are stated to have exceeded any previous year. The price of the almanac is 1-shilling. It is published by Messrs. Vinton & Co., 9 New Bridge St., London, E. C.

Massey-Harris Prize Competitions.—In 1900, the Massey-Harris Company gave, at Toronto, London, and Ottawa Exhibitions, \$1,000 in cash prizes for competitions in stock judging, natural history, photography, poultry, horses, architecture, and grain. The competitions were entered into with considerable earnestness, and quite keen rivalry existed in several of the events. The results were sufficiently encouraging to satisfy the Massey-Harris Company that their donation was well placed, so that they have repeated the grant of \$1,000 to be distributed in many respects in a similar manner. The price lists of these shows will give full information as to competitions, etc.

British Columbia.

Anyone thinking of farming in British Columbia should write for descriptive pamphlet of farms for sale in the Lower Fraser Valley—the garden spot of the Province.

We have compiled the largest and most complete list of farms, orchards, cattle-grazing and garden lands, and fishermen's attentions, in the Province. It has been very carefully selected, and we have a personal knowledge of every property described. Prices range from \$3.00 per acre to \$250.00 per acre, and in extent from 1 acre to 1,000 acres.

In the Lower Fraser Valley, and on the best lands around Vancouver, we rarely have more than a month of frost and snow at outside, and the thermometer has only sunk to zero twice in ten years.

WRITE

HOPE, GRAVELEY & CO.,

536 Hastings St. VANCOUVER, B. C.

I HAVE FOR SALE

SHORTHORNS

My herd bull, King Christopher (22561), 1 young bulls (reds and roans), and a few females. Write for prices.

Wm. McDonald, Pilot Mound, Man.

MAPLE GROVE STOCK FARM.

7 young SHORTHORN BULLS, by a son of Indian Warrior. Also a few choice heifers. Lord Stanley 25 -2927- at head of herd. Write

WALTER JAMES, ROSSER, MANITOBA.

15 miles west of Winnipeg, on main line C.P.R.

D. FRASER & SONS, EMERSON, MAN.

Breeders and importers of Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs a specialty. Young stock for sale. 9-y-m

Shorthorns.

Two young bulls—one by Imported Knuckle Duster, one by Lord Loosie 22nd.

Yorkshires.

Ten choice boars ready for service. Also some young sows. All from prizewinning stock.

JAMES BRAY, LONGBURN, MAN.



"What a Wise Old Chap!"

He has left his hide in good hands. Send for our circular in reference to custom tanning. We send samples of work with circular.

CARRUTHERS & CO., TANNERS.

and dealers in hides, wool, sheepskins, furs, tallow, etc. 9th Street, Brandon, Man.

Queenston Heights Stock Farm

Shorthorn Cattle.

Eight young bulls for sale: any age, any color. Three sired by Royal Standard 27653, by Judge 23419. Well known as winners at Toronto Industrial and Winnipeg. Also good cows and heifers; straight Scotch crosses.

Isaac Usher & Son, Queenston, Ont. Manufacturers of Queenston Cement.

SHORTHORNS, YORKSHIRES AND TAMWORTHS. Stock of all ages and both sexes, at prices according to quality. Write W. G. STYLES, ROSSER P. O., SEB. 12 131, WEST. C. P. R.

SHORTHORNS FOR SALE

of Scotch breeding, seven bulls and forty cows and heifers, mostly all in calf or calf at foot. A few Clydesdales of both sexes. Geo Rankin, Melrose Stock Farm, Hamiota, Man.

GOSSIP.

In this issue will be found the advertisement of McLay Bros., Janesville, Wisconsin, a firm whose home-bred Clydesdales have competed very successfully against the best imported stock brought to America. The list of sires in this noted stud includes such names as Barney, Handsome Prince (the World's Fair prize-winner and sweepstakes at the Chicago Horse Show, 1897), Prince Goodwin (the winning three-year-old at Chicago, 1900), and others, while the matrons include Starlight, Lady's Maid, Sheila, Lady Graham, and Coquette, the latter the single-harness winner at Chicago International, 1900. The advantage of dealing with such a firm as McLay Bros. is that one can go there and buy stock and see the ancestors, an opportunity afforded by very few establishments on this continent. We doubt whether a larger and better aggregation of brood mares, colts and stallions can be found, owned by one firm, anywhere on the face of the globe. So well thought of is this breeding establishment in the United States that it is a Mecca for students of Clydesdale lore and type, many professors and students of agricultural colleges making an annual pilgrimage there. We can unhesitatingly recommend McLay Bros. for quality of stock and fair dealing.

Situated on a rising slope of ground, near Killarney, is the Hyslop farm and home of a rising Shorthorn herd. Red is the dominant color in the breeding females, among which the following were noticed: Lady Abbottsburn 2nd, a massive, well-built cow, with breeding of the best; Matchless of Smithfield, Primrose of Smithfield 2nd, both of them with good backs and briskets. The red heifer, Royal Belle, is a good one. A roan Butterfly, by Royal Hope; Mountain Beauty, a Flatt cow, with a good red bull calf; and a splendidly-backed red heifer, were also seen. Another Flatt cow is the big red Isabella. It is only necessary to say that the females are a fine lot, even in type, and of the form that is valuable at the finale of all beef stock—the block. In addition, several of them are of show-yard character. The stock bull, Royal Hope (Bates with the Scotch top), has proved himself a valuable sire, transmitting to his stock easy-feeding qualities, as well as good backs, loins and hind quarters. Three of his young bulls were also noticed in the stalls.

The Cotswolds are thriving and increasing rapidly, among them being several of high-class mutton form. Several have been seen in the show-ring, and were not tail-enders there.

A few miles further removed from Killarney, the Shorthorn herd of those newcomers from Ontario, Paul Bros., is found, and while not yet large in numbers, is well up in quality. The matrons are all good individuals, among whom we may mention the Arthur Johnston cow, Daisy Roan, a cow with great back, loin and brisket, low and thick-set; she is by Clan Campbell (imp.); the big roan by Indian Warrior, a cow of great scale, and beef to the hocks; Red Rosy of Montcalm is a good milker, good in her crops, and in calf to Calthness. The roan bull calf by Calthness, out of White by Hillary, is a thick, lengthy, stylish fellow, with the makings of a sire.

Close to the little burg of Cartwright, on the Pembina branch of the C. P. R., is the fine homestead of John Wallace, at which may be found a herd of high-class Herefords. The substantial new barn and house gives a permanent look to the estate, which is heightened by an inspection of the cattle. Over 200 head are kept, some being milked and some just engaged raising calves. The pure-breeds number about 40 head. As a consequence, additions to the barns are contemplated to accommodate the rapidly-increasing stock. Two two-year-old heifers were noticed with considerable Hereford character; also Belle, the first-prize cow at Winnipeg last year, who has a very stylish-looking heifer by her side. The cow, as will be remembered, is deep and lengthy, with good ends and good handling qualities. Milkmaid 2nd, with a good bull calf, and the old imported cow, Milkmaid, were also seen. Nearby a son of the latter, by name Drewry, is very much in evidence, weighing, at four months, 700 lbs., a long, low, level calf, with good crops and rumps. A number of good cows and heifers are in the stalls, some of them prizewinners and others good enough to be. If the female line is strong, the males are no less so, being represented by Buller, the first-prize calf at Winnipeg, remarkably strong in the heart and crops, well set on short legs, and well let down in the twist; Maple Duke, the second-prize bull at Winnipeg, a long, low, level fellow, with capital skin and hair, now lord of the harem, and six young bulls, one of whom especially took our attention by reason of his masculinity (without coarseness), blockiness and sapiness. We are not surprised to learn that the demand for Mr. Wallace's cattle is greater than he can supply, one bull, Rock Lake, having recently been shipped to Carlo, N. D., and two bulls are yet to go to Medicine Hat. About two and one-quarter sections of land make up the homestead, a large acreage of which is in timothy.

Territorial Auction Sale.—A public sale of pure-bred bulls and cows, under the auspices of the Territorial Pure-bred Cattle Breeders' Association, is to take place at Calgary on the 12th of April. It is understood that a large number of high-bred Shorthorn and Polled Angus bulls and cows are to be offered at this sale. Liberal aid towards the venture has been secured by the Association from both the Federal and Territorial Governments. The sale is to be conducted according to the rules adopted in connection with the Ontario Provincial auction sales, where all sellers had to agree to accept the highest bid. This sale marks a new era in the pure-bred live-stock industry of the Territories. The local Government is now giving financial assistance towards the transportation of pure-bred bulls from Eastern Provinces, and the local breeders have felt that something should be done for them. It would appear that the encouragement of this sale will place them in a position to compete on favorable terms with Ontario and Manitoba pure-bred stock breeders. Territorial stockmen should not fail to patronize this sale. Half prices over the C. P. R. to Calgary have been arranged for all members of the Territorial Live-stock Association, who hold their annual conventions during the week in which the sale takes place. The secretary, C. W. Peterson, Regina, will supply catalogues to intending buyers upon application.

PLEASE MENTION FARMER'S ADVOCATE

Thorndale Shorthorns.

8 BULLS, under one year, and about 100 FEMALES, of all ages, to choose from.

JOHN S. ROBSON, Manitou, Man.

LAKE VIEW RANCH

Herefords and Galloways

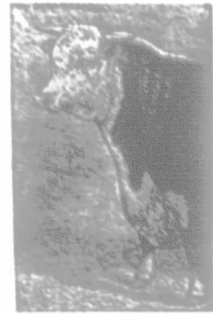
Young bulls for sale. For prices write

J. P. D. Van Veen, FILE HILLS P.O., N.-W. T.

HEREFORDS.

The range favorites. Good rustlers and feeders. Prizewinners, either male or female, for sale.

JOHN WALLACE, CARTWRIGHT, MAN.



POPLAR GROVE

HEREFORDS.

Champion herd of Western Canada.

Best beef cattle in the world. Sturdy young bulls for sale. Also cows and heifers. Nearly 100 head to select from.

J. E. MARPLES, Deleau, Manitoba.

JERSEYS FOR SALE

If you want a first-class family cow, or want a few to start a herd of pure Jerseys, come and see my herd or write me. A lot of the daughters of Old Massena (900 lbs. butter a year). Two bulls. All registered in A. J. C. C.

J. B. POWELL, Wapella, Assa.

Roxey Stock Farm,

BRANDON, MAN.

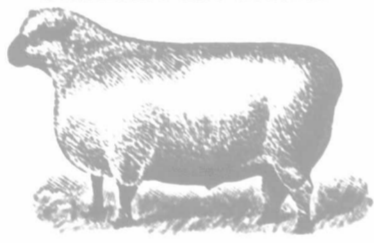
J. A. S. MACMILLAN,

IMPORTER AND BREEDER OF PURE-BRED

Clydesdales, Shires, Hackneys.

STALLIONS AND MARES.

Shorthorn Cattle



Shropshire Sheep

INSPECTION INVITED.

CORRESPONDENCE SOLICITED. Prices Right. TERMS CASH.

FULL PARTICULARS ON APPLICATION.

APPLY P. O. BOX 403.

MAW'S POULTRY FARM

WINNIPEG, MANITOBA.

LARGE ILLUSTRATED CATALOGUE MAILED free. I have acclimatized utility breeds only. My Mammoth Bronze turkeys are extra large, very healthy, and not inbred. They are pure Bronze, and tame. Can be easily handled. I have a grand flock of large Toulouse Geese: up-to-date deep-keeled Pekin ducks, English Rouen ducks; immense Hero strain Plymouth Rocks—they are great winter layers. Cockerels average 9 pounds. The popular White Wyandottes, Silver Laced Wyandottes, Large English White Leghorns that lay a great many large eggs. Light Brahmans. Eggs and stock for sale. I will supply incubator eggs selected from healthy flocks with farm range. M. MAW, Manager.

EGGS

From Andalusians, Black Minorcas, Cochins, Partridge—black and white—\$2.00 a setting. STOCK FOR SALE.

WM. ANDERSON, BRANDON.

FOR SALE:

Selected seed potatoes, true to variety and type, Beauty of Hebron, Freeman, White Beauty, American Wonder, and Blue Cup. Price, \$1.00 per bus., f. o. b. H. D. Buchanan, Cottonwood, Assa.

TAMWORTHS

This is the kind of pig to raise for profit. Young stock for sale from imported animals. Write W. E. BALDWIN, Manitou, Man.

TWIN GROVE FARM.

Young Yorkshire pigs, stock boar two years old, and year old sow. Prices still lower. Also Buff P. Rock cockerels. Write J. S. LITTLE, Proprietor, Oak Lake, Man.

PLEASE MENTION FARMER'S ADVOCATE.

First prize for Creamery Butter, Toronto and Ottawa. The highest awards for cheese, World's Fair, Chicago.

Winnipeg Creamery and Produce Co.

LIMITED.

CAPITAL STOCK, \$50,000.

S. M. BARRE,

Dealers in MANAGER.

DAIRY SUPPLIES AND PRODUCE.

238 AND 240 KING STREET.

Owing to the large increase in all departments of our business, we have organized a stock company with sufficient capital to meet all business requirements. We are now open to receive consignments of all kinds of farm produce, including butter, cheese, eggs, poultry, etc. Our creamery will be operated all winter, and farmers would do far better to send us cream than to make butter.

For further particulars please address: S. M. BARRE, MANAGER, Winnipeg Creamery & Produce Co., Ltd.

Argentine Flax for Seed. We are importing a quantity of Flax from the Argentine Republic, to be sold for seed this spring. Home-grown flax being so much damaged by weather last fall, farmers ought to be careful to procure good seed this year. Where it only takes half a bushel of flax to seed an acre, the extra expense of imported seed is nothing. Argentine Flax sown in North Dakota last year yielded five bushels per acre more than native seed, and ripened a week earlier. Flax is a better paying crop than wheat, besides giving the farmer a diversity of crops. Don't risk all on one crop. Try some Flax. FOR PRICES APPLY TO The Northern Elevator Company, WINNIPEG, MANITOBA.

Rat Portage Lumber Co. (Limited). Save time by drawing your Lumber home before the snow goes. Write Direct Jno. M. Chisholm, Gladstone and Higgins Sts. Winnipeg Formerly Manager for Dick, Banning & Co.

Boundary Herd of Poland-Chinas and Model Tamworths. YORKSHIRES. Two choice fall litters ready to ship—one from the 1st prize yearling sow at Winnipeg and Brandon Fairs in 1900. Also a few choice boars fit for service, and sows ready to breed. Address: W. L. TRANN, CRYSTAL CITY, MAN. King Bros., Wawanesa, Man.

The Veterinary Association of Manitoba.

Under the authority of Secs. 18, 19, 20, 22 and 23 of the Veterinary Act, 1890 (33 Vic. Chap. 60), the following persons only are entitled to practice as Veterinary Surgeons in the Province of Manitoba, or to collect fees for the service rendered as such:

- Alton, A. L. Sydney.
Baker, G. P. Wawanesa.
Braund, F. J. Wawanesa.
Brocken, G. K. Clan William.
Clark, J. L. Russell.
Cook, W. S. Virden, Man.
Cooke, H. L. Minnedosa.
Coxe, S. A. Brandon.
Cruckshank, J. G. Deloraine.
Dunn, J. W. Winnipeg.
Dunbar, W. A. Brandon.
Elliott, H. James Brandon.
Fisher, J. F. Brandon.
Fowler, J. Souris.
Golley, J. Treherne.
Graham, N. Dauphin.
Hutton, J. Alexander.
Harrison, W. Glenboro.
Henderson, W. S. Carberry.
Hilliard, W. A. Minnedosa.
Hilton, G. Portage la Prairie.
Himman, W. J. Winnipeg.
Hodgins, J. Minnedosa.
Hopkins, A. G. Neepawa.
Hurt, W. N. J. Belmont.
Irwin, J. A. Stonehall.
Johnston, H. J. McGregor.
Lake, W. H. Miami.
Lawson, R. Shell Lake.
Leslie, W. Melita.
Lipsett, R. C. Brandon, Man.
Lipsett, J. H. Holland.
Little, C. Winnipeg.
Little, M. Pilot Mound.
Little, W. Boissevain.
Livingstone, A. M. Melita.
McFadden, D. H. Emerson.
McGillivray, J. Manitow.
McKay, D. H. Brandon.
McKenzie, G. A. Neepawa.
McLoughry, R. A. Mucedoswin.
Martin, W. E. Winnipeg.
Monteith, R. A. Killarney.
Marshall, R. G. Griswold.
Murray, G. P. Winnipeg.
Nagle, J. W. Morden.
Robinson, P. K. Emerson.
Roe, J. S. Morden.
Rombough, M. R. Neepawa.
Rowcroft, S. V. Morden.
Rutherford, J. G. Portage la Prairie.
Schnobge, J. W. Boissevain.
Shoultz, W. A. Gladstone.
Smith, W. H. Carman.
Smith, H. D. Winnipeg.
Soder, J. H. Emerson.
Stevenson, C. A. Weston.
Stevenson, J. A. Carman.
Swanerton, W. Carberry.
Taylor, W. R. Portage la Prairie.
Thompson, S. J. Carberry.
Torrance, F. Carberry.
Waldon, T. Winnipeg.
Walker, J. St. Charles.
Welch, J. Minto.
Williamson, A. E. Roland.
Whaley, H. F. Glenboro.
Whistler, M. Manitoba.
Young, J. M. Rapid City.
Young, M. Manitow.

The practice of the veterinary profession in Manitoba by any other person is in direct contravention of the statute, and renders him liable for prosecution.

F. TORRANCE, REGISTRAR.

S. G. B. Minorcas.

Eggs for hatching now ready. English importations. Birds from the celebrated Pitt and Abbott strains. Our birds are in prime condition for ensuring good vigorous stock.

B. P. Rocks.

Eggs for hatching. Also a few fine cockerels for sale, from best Canadian strains - sturdy, vigorous stock.

FORT ROUGE POULTRY YARDS

HAS FOR SALE Golden Wyandottes, C. Indian Games, Langshans, Light Brahmas, White Wyandottes, Barred Plymouth Rocks, Belgian Hares, and fancy pigeons.

S. LING & CO., WINNIPEG, MAN.

BARRED PLYMOUTH ROCKS.

Eggs \$2.00 per setting. A few good breeding cockerels for sale.

F. J. Quinn, 420 Grosvenor St. London.

A few Angora goats have been introduced into the Province by Mr. Jas. Bray, Longburn, and Joseph Jickling, Carman. The Angora has become very popular in some parts of the States.

King Bross, of Wawanesa, Man., writes us, under recent date: "We have sold a sow in pig to J. K. Cameron, Routhwaite, and a young sow from our prize yearling sow to James Stancombe, Cartwright."

A well made recently at the farm of Wm. Maxwell, Moppano P. O., and the Shorthorns inspected. The proprietor, although only a beginner with Shorthorns, has wisely gathered together a few matrons of excellent breeding and information, notably Long Axes, a fine red cow, the red Stevie, and a noted for her milk.

HOME OF BARRED PLYMOUTH ROCKS



I keep only this breed, and aim to have in my pens the best birds in the Province. EGGS \$3.00 PER SETTING, TWO SETTINGS \$5.00.

PURE-BRED LIGHT BRAHMAS

Prize-winners. Ninth year. Stock for sale. EGGS, \$2.00. Address: GEO. HANBY, cor. Smith St. and Portage Ave., WINNIPEG, MAN.

DR. BARNARDO'S HOME.

The managers of these institutions invite applications from farmers and others for boys and youths, who are being sent out periodically, after careful training in English homes.

STAY AT HOTEL LELAND

The Leading Hotel of the West. ALL MODERN CONVENIENCES. RATES, \$2 to \$4 PER DAY.

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TO ALL POINTS SOUTH, EAST AND WEST. Minneapolis, St. Paul, Duluth, Chicago, Etc.

GREAT BRITAIN, EUROPE, AUSTRALIA, AFRICA, ETC.

Excursion rates to all Californian, Mexican and Southern Winter resorts.

Condensed Time Table from Winnipeg.

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PORTAGE BRANCH. Portage la Prairie and intermediate points.

MORRIS-BRANDON BRANCH. Morris, Roland, Morden, Balcar, Belmont, Wawanesa, Brandon, Also Selkirk River Branch, Belmont, Regina, Yorkton.

SWINDY BRANCH. Swindy, Winnipeg.

PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

John Wallace, Cartwright, advertises Herefords, either male or female, prize-winning stock.

Mr. Walter James, of Rosser, reports the following sales of Shorthorns during March: To Donald McKay, Balmoral, the yearling roan, Kimberly 36498, out of Lady Gray 36443.

Wm. Sharman, Souris, Man., representative of the Pure-bred Cattle Breeders' Association of Manitoba, advises us that he will attend the auction sale of pure bred cattle, which is to be held at Calgary on April 12th.

Mr. W. R. Mey, Niverville, has secured the services of Geo. Craig as foreman on his farm. Mr. Craig has been for seven years stockman at the Minnesota State Experiment Station.

THE NICHOLSON TAYLOR SHORTHORN SALE A SUCCESS.

The auction sale, on March 30th, of drafts from the Shorthorn herds of R. & S. Nicholson, Sylvan, and W. H. Taylor, M. P. P., Parkhill, Ont., notwithstanding a wet day, was a grand success.

Vacuna 30th, 6 years; S. G. Little, Toronto, \$165.

Princess Venus, 2 years; Jas. O'Hara, 85.

Wilhelmina 2nd, 2 years; Jas. O'Hara, 145.

Warrior's Rose 2nd, 1 year; Harry Siddell, 75.

Robson, Iderton, 75.

Robson, Iderton, 75.

Robson, Iderton, 75.

Robson, Iderton, 75.

Robson, Iderton, 75.

Robson, Iderton, 75.

Robson, Iderton, 75.

Robson, Iderton, 75.

Robson, Iderton, 75.

Robson, Iderton, 75.

HORSEMEN! THE ONLY GENUINE IS

GOMBAULT'S CAUSTIC BALSAM.

The genuine without the signature of The Lawrence Williams Co. Sole Importers & Proprietors for the U.S. & CANADA.

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe attacks. Removes all Bunches or Blemishes from Horses and Cattle.

800-ACRE FARM FOR SALE.

4 MILES FROM MOOSOMIN, N.-W. T.

As I am leaving the West, owing to unforeseen circumstances, I offer my farm, herd of Shorthorn cattle, Berkshire pigs, and horses for sale.

The farm is situated in one of the best grain districts in the West, and produced 5,000 lb. of wheat in 1898. 150 acres under cultivation - 250 acres ready for wheat, including 75 a. breaking and 75 a. summer fallow.

R. J. PHIN, MOOSOMIN, N.-W. T.

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SEND TO KEITH & CO., WINNIPEG, MAN.

Catalogues mailed on application. P. O. Box 156.

SEEDS

J. M. PERKINS, the Seedsman of Winnipeg, as he carries the greatest stock of Flower, Garden and Field Seeds west of Toronto.

J. M. PERKINS, MARKET SQUARE, WINNIPEG.

Seed Wheat.

Six hundred bushels Red Fife No. 1 Hard. No noxious weeds. Test at Central Experimental Farm shows 80% germinating, 98 plants of which made strong growth.

THE MANITOBA Fire Assurance COMPANY.

ESTABLISHED 1866. HEAD OFFICE, WINNIPEG.

Licensed by a full deposit with Manitoba and Territorial Governments.

The Hon. H. J. MACDONALD, President. H. H. BECK, Vice-Pres. and Man. Director.

Reliable, Energetic Agents Wanted.

IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE.

GOSSIP.

Major H. F. Dent has shipped to the order of Messrs. Clinie & Telfer, of Montreal, three more Thoroughbred stallions. They are: more Halifax bay horse, by Alloway, out of Lady Gwendoline; Dracula, chestnut horse, by Prism, out of Lavender, by Morocco; Stoneleigh, brown horse, by Petros, out of Lottie Gordon, by Gordon. Major Dent is coming to Canada to purchase remounts for the army in South Africa.

ALEX. HUME & CO.'S AYRSHIRES.

The well and widely known firm of breeders of high-class Ayrshire cattle, Alex. Hume & Co., Menie, Ont., in renewing their advertisement write that their herd has come through the winter in good shape, and is doing satisfactory dairy work. The fourteen-months bull offered for sale is of choice breeding and excellent quality and color. The young females, which are of different ages, are a nice lot, and our crop of calves, sired by our imported bull, Caspian of St. Anne's, are coming strong and of good quality, and being from heavy milking dams, are very promising for usefulness. Parties requiring dairy stock will do well to note the advertisement and write the firm for prices and particulars.

A GREAT SALE OF SHORTHORNS.

The dispersion auction sale, at South Omaha, Neb., on March 12th and 13th, of eighty-one head of high-class Shorthorns, property of Messrs. Thos. Westrope & Son, Harlan, Iowa, at an average of \$144.83, scores as the second best sale of Shorthorns for the number in the last twenty-five years, the record sale for this period being made by Mr. W. D. Platt, of Hamilton, Ont., at Chicago in August last, where fifty-nine head made an average of over \$800. At the Westrope sale the highest price for any cow of any breed now living was paid for Sweet Violet 2nd, a red five-year-old, sired by Lavender King 3rd, and bought by Col. G. M. Casey, Shawnee Mound, Mo., for \$3,705. Geo. K. Ward, Hawarden, Iowa, who bid \$3,700 for Sweet Violet, paid \$1,500, the second highest price, for Lavender Princess, a roan five-year-old by the same sire. The third highest price for a female was \$1,000, paid by Higler & Sons, Iowa, for the red four-year-old Golden Abbotsburn, by the World's Fair champion, Young Abbotsburn. The highest price for a bull was \$1,100, for Young Abbotsburn 2nd, a roan four-year-old, sired by Young Abbotsburn, bought by T. J. Ryan & Son, Irwin, Iowa. Four other bulls brought \$700 to \$760. The lowest price in the whole sale was \$130.

A GOOD SALE OF JERSEYS.

The dispersion sale of the small herd of registered Jersey cattle, property of Mr. R. Reid, Berlin, Ont., which took place March 15th, was very successful, the cattle being of a good class and in good condition. Bidders were present from Toronto, London, Chatham, St. Thomas, Brampton, Norval, etc., besides a large attendance of local farmers and business men. The bidding was spirited, and the cows of milking age, especially, were in great demand, and several of them brought from \$115 to \$245 each, the latter price being paid by Mr. Robert Davies, of Toronto, for the four-year-old fawn-and-white cow, Duchess of Berlin, by Lord Harry 3rd, dam Fama Pogis of Grimsby, who has a record of 20 lbs. 10 ozs. of butter in seven days. Lucy of Glen Rouge, with a record of 12 lbs. milk per day, testing 6.9 per cent. butter-fat, was taken by Mr. Davies at \$115, and the same buyer gave \$180 for Sweet Fairy, a four-year-old cow that was forced dry about two weeks before calving in January, 1901, and is now giving 18 quarts daily, testing 6.7 per cent. on winter feed. Mr. Reid writes the FARMER'S ADVOCATE: "There were eight females in the sale hard to duplicate in Canada for quality. Mr. Geo. Davies came up from Toronto unexpectedly the day before the sale, and saw the cows milked. He saw 'Duchess of Berlin' give 11 quarts of milk at one milking, and 'Sweet Fairy' 10 quarts, and none less than 7 quarts. He quietly telephoned the results to his father, who came up at once and bid keenly until he secured six heads. Had another breeder been present like Mr. Davies, I would have been at least \$2,000 richer, as he values 'Duchess' at \$1,000. Her udder is about perfect in shape and quality, and she has a large frame and good constitution to back it up. She gave 21 quarts of milk in 24 hours the day before the sale, and had only commenced to feed well after calving. We did not have time to test her milk for butter-fat. 'Sweet Fairy' gave 20 quarts, testing 6.5 per cent.—a phenomenal cow, and only four years old. I bred, developed, and personally saw these cows cared for myself in order to enter them in a public test when at their prime, and feel now as if I had lost a member of my family. After loading them on the car I felt as if I had been to a funeral. However, they have gone to a good home, where they will be well cared for, and I feel confident they will not disgrace their ancestors nor early training. I will rest this summer, and perhaps in the fall start to lay pipe to form the nucleus for another herd. My chances of getting a farm near town now are good. I will not lease a farm again, as cattle fed as I fed mine, and land worked thoughtfully, increases its value and I get very little benefit. If rented as in the old land, for a long term of years, then a man has a chance. Following is the sale list:

- Lucy of Glen Rouge, 7 years; Robt. Davies, Toronto.....\$155
 - Bashy Rose, 5 years; Robt. Davies..... 115
 - Sweet Fairy, 4 years; Robt. Davies..... 180
 - Miss Bobs, 2 years; Robt. Davies..... 180
 - Duchess of Berlin, 4 years; Robt. Davies..... 245
 - Princess-Bonnie Bird, 3 years; H. G. Clark, Norval..... 80
 - Lilly St. Lambert, 3 years; B. H. Bull & Son, Brampton..... 30
 - Lula of St. Lambert, 2 years; John McGugan, Rodney..... 40
 - Princess Lula, 3 years; A. Lehman, Elmira..... 75
 - Favoring Girl of Berlin, 1 year; John McGugan..... 30
 - No. 18 heifer, 1 year; H. G. Clark..... 75
 - No. 21 heifer, 1 year; Robt. Davies..... 45
 - No. 22 Flossy, 3 years; John McGugan..... 45
 - Jessie, 1 year; Geo. Wanless, Berlin..... 45
 - Heifer calf, 1 month; Thompson Porter, Mt. Dennis..... 30
 - Heifer calf, 1 month; Geo. Brenner, Berlin..... 30
 - Heifer calf, 3 months; T. Porter..... 30
- Bull.
- Fama Pogis of Berlin, 2 years; H. Smith, Mt. Dennis..... 47

The Florist Finds Nitrate of Soda

indispensable in forcing a rapid development of his flowers and promoting a vigorous growth.

Best Results Are Obtained

when Nitrate of Soda is applied as a top dressing after the plants begin to grow. Nitrate of Soda can be used with advantage as a supplemental fertilizer with either stable manure or chemical fertilizers. No florist should be without it. Send for our free pamphlets and list of dealers. John A. Myers, 12 P. John St., New York City.

Shire Horses.

The subscribers offer for sale a number of choice-bred

BROOD MARES, FILLIES AND STALLIONS.

Distance about four miles from either Welland or Fenwick. Will meet parties wishing to inspect the stock at either of these places.

Morris, Stone & Wellington Fonthill P. O., Ont.

UP WITH THE TIMES.

Progressive Cheese and Butter makers use WINDSOR SALT, because they know it produces a better article, which brings the highest price.

THE Windsor Salt Co., Limited. WINDSOR, - ONT.

BRAMPTON JERSEY HERD.

For sale: 2 yearling bulls; 3 bull calves, sired by Brampton's Monarch (imp.), and out of first-class cows. A number of cows and heifers in calf. Also some unregistered cows and heifers, fresh-calved and springers—grand family cows.

B. H. BULL & SON, BRAMPTON, ONT.

STALLIONS FOR SALE.

1 Imported Shire stallion, aged; he is a big horse and a fine looker. 1 Imported Yorkshire Coach, just in his prime; he is a great show horse—has never been beaten in a show-ring. Both horses are money-makers, and will be sold at a bargain for the buyer. Thornbury Station, G. T. R.

WM. FULFORD, Heathcote P. O.

Clydesdales and Ayrshires

Imported and home-bred. Also Dorset Horned sheep, and the leading varieties of poultry.

ROBERT NESS & SONS, Howick, Que.

4 Imp. Clydesdale Stallions

From such well-known sires as Sir Everard (5353), Prince Roberts 7135, Prince Alexander 5389.

2 Imp. Shorthorn Bulls, 4 Bulls Imp. in Dams, 3 Canadian bred Bulls.

21 Imp. Cows and Heifers, 7 Canadian-bred Cows and Heifers.

Geo. ISAAC & BROS., SOMANTON, ONT. CORCORAN STATION, G. T. R.

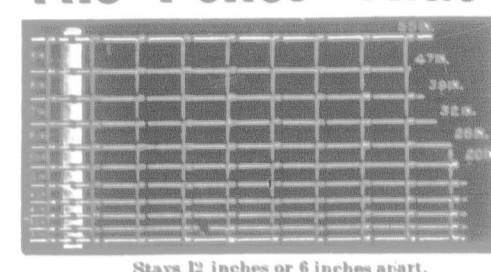
FOR SALE.

CLYDESDALE stallions, mares and fillies, representing the best blood in Scotland—Prince of Wales, Darnly, Macgregor and Lord Lyon—including the great sweepstakes winner, The Marquis (1182), a grandson of Prince of Wales and Macgregor; also the first-prize 3-year-old at Ottawa this season.

THOS. GOOD, Richmond P. O., Ont. R. R. Station, Stittsville, C.P.R.

IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE.

The Fence That's Guaranteed.



AMERICAN Field & Hog Fence.

Made on right principles, of Best Steel, best galvanizing, serves every purpose of fencing and is practically everlasting.

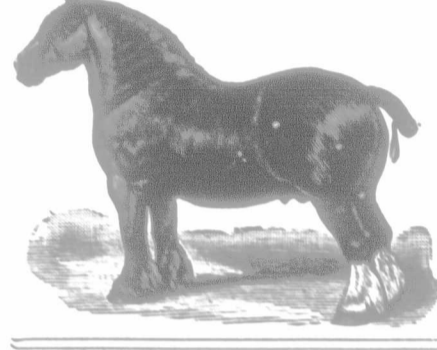
Now is the Time to Put It Up.

Sold by agents in 15,000 towns. If no agent in your town write to the makers.

Stays 12 inches or 6 inches apart.

AMERICAN STEEL & WIRE CO., Chicago or New York.

CLYDESDALE STALLIONS FOR SALE.



Fourth consignment will arrive about February 15th, 1901. A High-class Lot, of Good Size and Quality, and of Most Fashionable Breeding. Parties desirous of securing high-class horses will do well to see these or write us before purchasing.

Dalgaty Bros., 463 King St., LONDON, ONT.



GRAHAM BROS., CLAREMONT, ONT.

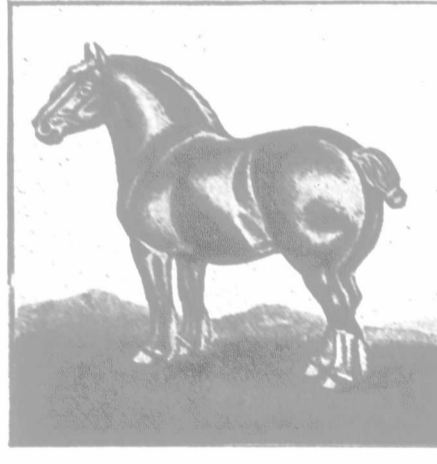
PIONEER IMPORTERS AND BREEDERS OF Clydesdales and Hackneys.

THE HOME AND HEADQUARTERS OF THE WINNERS. The oldest, largest and most complete collection of Clydesdales in America. Established in 1871, and has been the champion stud ever since.

27 FIRST AND 9 SECOND PREMIUMS, INCLUDING 7 GRAND SWEEPSTAKES.

At the recent leading Canadian shows—Toronto and Ottawa—being three times the number won by all competitors. Our animals are of immense size, good quality and action. Prices moderate. Terms to suit customers. Visitors cordially invited. Correspondence solicited.

CLAREMONT IS 25 MILES EAST OF TORONTO, ON THE C. P. R.



LATELY IMPORTED A FRESH LOT OF Glydesdale Stallions,

Comprising sons and grandsons of many of the most noted Scotch showyard winners and sires, all in the pink of condition without surplus flesh, and personally selected to meet the best Canadian markets, having, without exception, the best of bone, hair, feet, and action, coupled with true Clyde character. I will make further importations as the times demand. Inspection invited. Prices consistent with quality.

ROBERT GRAHAM, Ringwood P. O., Ont. Stouffville Station, G. T. R., and telegraph office.

THORNCLIFFE Stock Farm

The largest stud of Clydesdales in Canada, headed by the Champion Stallion of all ages,

"LYON MACGREGOR."



Stallions and Colts

From the best blood in Scotland and Canada. Ayrshire bulls and heifers from imported stock. Jersey heifers and bull calves, sired by the prize-winning bull, Distinction's Golden. Best milking strains, with good teats. Terms reasonable. A visit to Thorncliffe will well repay you.

ROBT. DAVIES, Thorncliffe Stock Farm, TORONTO. PLEASE MENTION FARMER'S ADVOCATE.

OAKLAWN FARM

AS ALWAYS, VASTLY IN THE LEAD. PERCHERONS, FRENCH COACHERS, SHIRES.

ON HAND, HOME-BRED AND IMPORTED 270 STALLIONS, 235 MARES.

The greatest collection of stallions ever brought together. Our two large, recent importations for this year included the Principal Prize Winners at the WORLD'S EXPOSITION, PARIS, and at the Government Shows at Amiens and Mortagne, and the Tops, first choice, purchased from the leading studs of France and England.

The superiority of the Oaklawn Percherons was also shown at the

INTERNATIONAL LIVE-STOCK EXPOSITION

at Chicago, December, 1900, pronounced by press and public the greatest live stock exhibition ever seen, where Oaklawn's Exhibit was awarded Three 1st Prizes, three 2d Prizes, three 3d Prizes, two 4th Prizes and two 5th Prizes in the three stallion classes; Championship, stallion, any age; Championship, mare, any age; 1st and 2d Prizes for collections; \$100 Gold Medal, best group, five stallions; \$100 Gold Medal, best group, three mares.

Catalog on application. Prices reasonable. DUNHAM, FLETCHER & COLEMAN, WAYNE, DU PAGE CO., ILLINOIS.



IMP. FASHION'S FAVORITE.

FOR SALE:

Three imp. Yearling Bulls; Seven imp. in-dam Bull Calves.

Bred by Messrs. Duthie and Marr, from females imported by us, and sired by the best bulls in Scotland. All are excellently bred and first-class individuals.

We also offer any reasonable number of females, either in calf or with calves at foot; all ages.

Herd headed by the imported bulls, Golden Drop Victor and Prince Bosquet.

Also the Standard-bred Trotting Stallion, PAVON (30760) A. T. R.

CATALOGUE FREE.

If interested, come and see us or write:

H. CARGILL & SON, CARGILL, ONT., CAN.

TROUT CREEK HERD OF SHORTHORNS.

Since our Chicago sale we have imported sixty-two head, including some Royal winners; they were pronounced in Scotland superior to past importations. We try to import the best, believing that this is one of the ways to assist in improving the breed on this side of the water. Being thoroughly convinced, also, that a bull of the right sort is even more than half the herd, we have decided to keep the following choice ones:

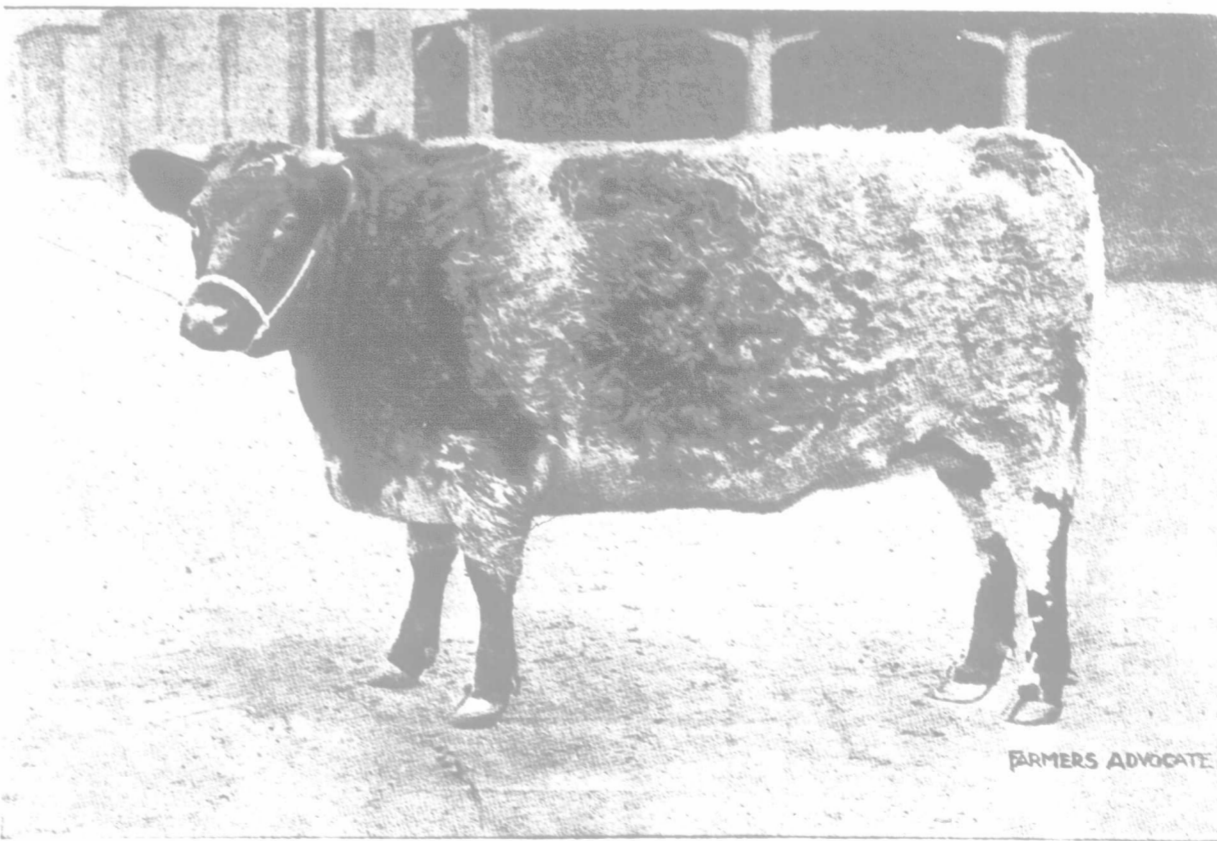
Imp. Lord Banff,

Bred by A. Watson; of the Campbell Bessie family.

Imp. Consul,

Bred by J. D. Fletcher; of the Campbell Claret family. Consul was awarded first at Edinburgh, first and champion at Provincial Union, first and champion at Creiff, and second at the Highland. His sire, Watchword, bred by Wm. Duthie, was first at the Highland in 1895 and 1896, and got by Scottish Archer. Watchfire, by Watchword, was first at the Highland, 1897. Consul is the highest-priced bull imported to Canada.

Hamilton is a city of over 20,000 inhabitants, located on main line of Grand Trunk Railway, between Chicago and Buffalo; also connected by Canadian Pacific Railway and Michigan Central Railway branch lines.



CICELEY.

Bred by Her Majesty the Queen; undefeated in her class and many times champion; imported by W. D. Flatt.

Imp. Silver Mist,

Bred by Wm. Duthie; of the famous Missie family. He had many friends for first choice at Messrs. Marr and Duthie's sale. Mr. Beck, representing the Prince of Wales, made next to last bid.

Imp. Wanderer's Last,

Bred by W. S. Marr; also of the Missie family. Is the last calf got by that renowned Cruickshank bull, Wanderer. Mr. Marr considers this youngster very promising.

We keep in our herd a choice lot of both imported and Canadian cattle, of both sexes, from which to make selections. Personal inspection invited. Parties desiring to see the herd will be met on arrival of trains at Hamilton if notice is given. Visitors always welcome.

W. D. FLATT,

378 Hess St. South.

HAMILTON, ONT.

Jas. Smith, Manager.

FOR SALE
Three Beautifully-bred
Clydesdale Stallions

Royal Erskine (imp.) [2529] (10-431)

Brown; foaled May 3, 1898. Bred by Chas. Smith, Jr., Incheorsie, Huntly, Scotland.

Dam Roseabella (12921)	Sire Prince of Erskine (9647)	Brooder of Sire, W. S. Park
2 Rose of Incheorsie (2823)	Lord Montrose (7973)	J. McGibbon.
3 Susie of Incheorsie (3822)	Johnny (414)	Wm. Kater.
	Black Samson (62)	A. K. Leitch.

ROYAL ERSKINE is a grand young horse, and won Second at both Toronto and London in 1899 against strong competition, when in very thin condition, being just off the ship. PRINCE OF ERSKINE (9647), by Prince of Albion, dam Halton Beauty (5687), by the great Barnley (222), by Knight Errant (483), dam Lady Jane (642), by Model Prince (1225). JOHNNY (414), alias Nonsuch, alias Young Emperor, alias Rantin Johnny, was a prize winner at the Highland Society's Show at Glasgow in 1873.

Balmedie Cameron Highlander (imp.) [2562] [Vol. 21, p. 134 S.]

IMPORTED IN 1899 BY H. CARGILL & SON, CARGILL, ONT.

Dark bay, white star on face, hind feet and ankles white, foaled April 7, 1898. Bred by W. H. Lumsden, of Balmedie, Scotland.

Dam Balmedie Doris (13511)	Sire Royalist (6242)	Brooder of Sire, Jas. Lockhart
2 Lady Dorothy (9888)	Balmedie Prince (744)	J. Cranston.
3 Maggie of Kirminnoch (3827)	Barnley (222)	Sir W. Stirling Maxwell.
4 Jean of Kirminnoch (3826)	Strathelyde (1355)	J. McIsaac.
	Young Conqueror (957)	Jas. Smith.
	Cairn Tom (417)	Mr. Cochrane.

BALMEDIE DORIS won the following prizes: only times shown—1886, Second Prize as a three-year-old at Royal Northern, Aberdeen, 1897, Second Prize as yearling mare at Royal Northern, Aberdeen. 1888, Second Prize as mare with foal at foot, at Royal Northern, Aberdeen. LADY DOROTHY won the following prizes, and was one of the best mares left by that famous stallion, Barnley (222). 1891 Glasgow Show, Fourth Prize. Royal Northern, Aberdeen, First and Special for best mare in yard. 1892 Royal Northern, Aberdeen, First with foal at foot. Highland and Agricultural Show at Inverurie, First Prize. 1893 Highland and Agricultural Show at Edinburgh, Silver Medal. 1894 Highland and Agricultural Show at Aberdeen, Third Prize. 1895 Forth and Clyde Show, First Prize and Special for best female. Inverurie Show, First Prize and Special for best female. ROYALIST (6242), sire Barnley (222), dam Princess (6365), by Prince of Wales (673), is one of the Champion Clydesdale Stallions of the day, both in the show-yard and at the stud, his progeny having taken First Prizes at the Highland and Agricultural Society, Royal English, and other leading shows. ROYALIST, in 1887, as a one-year-old colt, gained Third Prize at Kilmarnock, First Prize and Cup at Royal Northern Summer Show, Aberdeen, and Third Prize at Highland Society's Show at Perth. In 1888, as a two-year-old colt, he gained First and Challenge Cup at Inverurie Show, First Prize and Cup at Royal Northern Summer Show, Aberdeen. In 1889, as a three-year-old stallion, he gained First Prize at Royal Northern Summer Show, Aberdeen, and Second Prize at Highland Society's Show at Melrose, and in 1893, when seven years old, he gained First Prize and Challenge Cup as champion male at the Jubilee Show of the Royal Northern Society, Aberdeen. BALMEDIE PRINCE (744), by Prince of Wales (673).

Royal Carruchan (imp.) [2561] (Vol. 21, p. 172, S.)

IMPORTED IN 1899 BY H. CARGILL & SON, CARGILL, ONT.

Bay, stripe on face, off fore and hind feet white; foaled May 4, 1898. Bred by David Walker, Coullie, Uday, Aberdeenshire, Scotland.

Dam Jess of Coullie (13647)	Sire Prince of Carruchan (8151)	Brooder of Sire, J. McCall
2 Balfarg Jess (3883)	Mount Royal (8065)	D. Mitchell.
3 Dainty of Kingsdale (8448)	Corsair (1419)	Sir W. Stirling Maxwell.
	Scotman (760)	J. McKim.
	Stirling Tom (1357)	R. Moubrey.
	Sir Colin Campbell (778)	R. Logan.
	Stirlingshire Champion (530)	J. Hardie.

PRINCE OF CARRUCHAN, by Prince of Wales, was First at Highland Agricultural Society Show at Dundee, as a two-year-old. First and Champion at the Highland Society, as a three-year-old, at Stirling. First as an aged horse at the Highland Society Show at Edinburgh; also winner of the Cawdor Cup twice at the Glasgow Stallion Show.

MOUNT ROYAL won the following prizes—1888, First at Perth. 1889, First at Turriff. 1890, First and Champion for best entire, any age, Royal Northern, Aberdeen. First and Clydesdale Society's Medal for best entire, any age, Turriff. First and Challenge Cup for best animal, male or female, ruchan at Highland Society's Show, Stirling. 1892, First, Royal Northern Summer Show, Aberdeen. Fourth, Highland Society's Show, Inverurie. 1893, Second, Glasgow, as sire of five yearlings. Kirriemuir Society's Premium horse. 1894, Kirriemuir Society's Premium horse. His stock has gained First Prizes at Huntly, Keith, Banff, Turriff, Inche, Kennethmont, Inverurie, Fyvie, Aberdeen, Glasgow, Edinburgh, Dundee, East Kilbride, Kirkintilloch, Girvin, Kirriemuir, Montrose, Forfar, Arbroath, etc. He is sire of Royal Garty (3644), the Cawdor Cup winner in 1895 and 1896.

GOSSIP.

Barred Plymouth Rock eggs and cockerels are offered in this issue by F. J. Quinn.

Junham, Fletcher & Coleman, Wayne, Du Page Co., Ill., write us on March 22, 1901: "We would be pleased to have you make notice of the arrival at Oaklawn Farm, Wayne, Illinois, February 1st, of our first importation from France for 1901. This consisted of 35 Percheron stallions, all of choice breeding and great individual merit. A safe trip across the Atlantic and a 30 hours' run by express from New York, and without much fatigue, landed them at Wayne, without much fatigue, and now, fully rested, they are in prime condition for the coming breeding season. In connection we would remark that, although we have a continuous brisk trade, showing a strong demand for breeding stallions of extra quality, yet our frequent large importations have so provided us that we are well supplied, and our present stock on hand, both in numbers and quality, is positively unrivalled.

Messrs. R. Reid & Co., breeders of Ayrshire cattle, Large English Berkshire and Tamworth swine, Hintonburg, Ont., near Ottawa, in renewing their yearly advertisement, write: "Our stock, both cattle and hogs, are wintering well. We are sold out of bulls fit for service, but have five calves from three weeks to four months old, sired by our stock bull, Duke of York 2nd (imp.) 201, first-prize yearling, Toronto, 1898; his dam, Clara 3rd of Balmowear (imp.) 2381, a Royal and Highland Society winner, who has a record of 62 lbs. a day. They are a very promising lot. Our herd now numbers about 10 head. We have 18 cows and 8 two-year-olds coming in this spring. Lady Maggie 6013 and Silva 904, both winners of honors several times, are just fresh, and are large-sized cows, with good teats. Our Berkshire and Tamworth sows are coming in with fine strong litters. We have a good selection of both Berks and Tams nearly ready to ship. Our Tamworth stock boys are: Amber King 976, winner of first at Ottawa Exhibition, 1898, under 6 months, 1899 as a yearling, 1900 as aged; Amber Prince 134, winner first, 1899, under 6 months, 1900 as yearling, same fair. We are using a boar bred by Snell & Lyons, and the stock boar on Experimental Farm, so can furnish pairs, not akin. Maple Cliff Farm joins the Experimental Farm at Ottawa."

Elsewhere in this issue appears the advertisement of a dispersion auction sale, fixed for May 1st, of high-class Shorthorn cattle and Clydesdale horses belonging to Messrs. F. G. Boyer, Georgetown, P. E. I., and Franklin Boyer, Charlottetown, P. E. I. Mr. F. G. Boyer's Shorthorns are well known to be richly bred, most of them being members of favorite Scotch families, and his herd has been very successful in prize-winning at Provincial exhibitions, having won the first herd prize and championship for best bull of the breed, any age, at St. John and Halifax more than once. The Clydesdales are said to be a real good class, and should attract attention at this time when good horses are so much in demand. Parties interested will do well to read the advertisement and send for the catalogue.

PERMANENT SITE FOR THE ROYAL SHOW. The Special Show Committee of the Royal Agricultural Society, appointed to select a site in the neighborhood of London for a permanent showyard, have reported that the only one that complied with the Society's requirements was one at Twyford Abbey, between Willesden Junction and Ealing, about seven miles from the Marble Arch. The committee were unanimously of opinion that this site was admirably adapted as a permanent showyard for the Society. A sub-committee of members of the Special Committee resident in or near London was appointed by the Council, with power to enter into negotiations with any purchaser of the site as to the terms on which the Society could rent about one hundred acres of the site for the purposes of a permanent showyard.

TUBERCULIN-TESTING VETERINARIANS. The Dominion Minister of Agriculture, Hon. Sydney Fisher, has appointed Dr. J. G. Rutherford, ex-M.P., of Portage la Prairie, Manitoba, an experienced veterinarian, to administer the tuberculin test in Great Britain to cattle imported to Canada for breeding purposes, and as indicated in Mr. Fisher's manifesto, published in our last issue, this officer's certificate will be accepted by the United States Department for cattle going through to the United States, without further test here or at the frontier. The Minister has also appointed Dr. William Stubbs, of Caledon, ex-M.P., for Cardwell Co., Ont., to be stationed at Toronto for the purpose of testing cattle for export. Mr. Stubbs is also a qualified veterinary surgeon. At the present date no official announcement has been made of the appointment of other officers at other points for this purpose, though we judge it is probable that others will be appointed in the near future.

NOTICES.

Cement Harder than Stone.—The work of tearing down some of the abutment walls at lock No. 23, new canal, is now going on. The Government is doing this by day work. Mr. Geo. Seals, of Niagara Falls, is the foreman in charge. These walls were built during the construction of the canal, about 25 years ago, with Battle's Thorold Cement, and during the work dynamite had to be used to separate the stone. Workmen employed there say the cement has actually set harder than the stone. Willand Telegraph.

Queenston Cement Going.—Mr. Isaac Fisher, of Queenston, Ont., during a recent call at our office, wished us to say to our readers that those who want Queenston hydraulic cement this season should order early, as the demand is far in excess of any other year at this season. Already several thousand barrels of cement has been shipped out, and orders are increasing daily. The output for this season will be 500 barrels per day, but Mr. Fisher estimates that 800 barrels per day will be taken this year.

AFTER EFFECTS OF GRIP

Are Often More Serious Than the Grip Itself.

Physicians and grip sufferers alike are agreed that the after-effects of the disease are more to be feared than the acute attack; you can never be sure that the disease has left the system completely.

La Grippe naturally attacks the weakest organ, and leaves it still weaker.

Not only pneumonia, consumption, bronchitis and throat trouble follow the grip, but kidney, liver and stomach troubles are just as liable to result, provided any of these organs should happen to be in a weak condition at the time of attack.

To get rid of the grip germ, to get it entirely out of the system and blood, few remedies are so good and none safer than Stuart's Catarrh Tablets. They are not a compound of powerful and dangerous drugs, but a pleasant, palatable, convenient remedy in tablet form, composed of the wholesome antiseptic principles of Eucalyptus bark, bloodroot, and similar germicide remedies which are perfectly wholesome and harmless to the system, but death to the germs of grip, catarrh, consumption and diseases of the throat and air passages.

Mrs. Chas. Goruley, of Memphis, says: "Last winter an attack of the grip left me with weak back, a persistent cough, and loss of flesh and appetite, and after using various remedies for several months, with little or no improvement, I finally bought a 50 cent package of Stuart's Catarrh Tablets at my drug store, and as they were pleasant and convenient to take, I used them at all times of day or night, and I was astonished to secure such fine results from so pleasant and convenient a medicine. In two weeks my cough disappeared, my appetite returned, I improved in flesh and color, and no one would now think that I had ever had such a thing as the grip. My druggist told me he had sold more of Stuart's Catarrh Tablets, for the cure of grip, colds, and catarrh, than any other similar medicines—Adv. on

BULL-STRONG! PIG-TIGHT. An Illinois farmer said that after harvest he had fully 200 bushels of loose oats on the ground that he could not secure any benefit from, because the fence around the field would not turn hogs. Figure the loss for yourself. He also said all this would have been saved if he had used the Kit-man Woven Wire Coiled Spring Fence, and the value would have gone a long way towards paying cost of the fence. With the Duplex Machine any farmer can make it himself at the actual cost of the wire. Catalogue free for the asking. C. C. DAVIS & CO., Box C-116, Freeman, Ont.

For Perfect Fruit SPRAY YOUR ORCHARDS WITH THE Spramotor. Intelligent and timely spraying will make your orchard profitable. The Spramotor is the result of careful experiment and is kept right up to date. Met the world in open competition on the invitation of the Ontario Government and won the award.—This should mean something to you. The Spramotor has never been defeated.—All castings solid brass, cylinders made from drawn brass tubes. All parts interchangeable. Saves fifty per cent. in labor. Most economical because solution goes farthest and most effective because it throws anything from a misty spray to a solid stream. Will also whitewash or paint your buildings. Free treatise for your address. THE SPRAMOTOR CO., LONDON, ONT.

Hatch Chickens IN TORONTO Incubators. One farm, near Toronto, now using 48 of our machines. For catalogue and prices, address T. A. WILLITTS, 514 Dundas St., Toronto, Ontario

The Horses that made Janesville Famous.

For twenty years past Janesville has been associated with all that was high-class in the line of horses, and the name of "GALBRAITH" is familiar as a household word to every horse breeder of any note on this continent. The undersigned respectfully invites an inspection of his present stock of



CLYDESDALES.

which are believed to be fully equal to the best ever maintained during the palmy days of the business. Ample size, superior breeding, great individuality, moderate prices, and the best of guarantees, are among the inducements offered buyers. An assortment of Percherons, Shires, Suffolks and Hackneys also on hand. The only place where the best of all the breeds can be compared alongside each other. Prominent prizewinners at the recent International Live Stock Show at Chicago. Send for catalogue.

Branch barn at Woodstock, Ont., in charge of S. P. Thompson, agent. Call and see the horses there.

ALEX. GALBRAITH, JANESVILLE, WISCONSIN.

FOR SALE:

7 Shorthorn Bulls

OUR HERD was awarded, at Toronto Exhibition, 1900: first prize for best herd of 1 bull and 4 females; first for breeder's herd of 1 female; first for cow in 4-year-old class; first for cow 3 years old; first for 2-year-old heifers; also gold medal for best female, any age. The herd has produced such bulls as Banker; Lord Stanley, 5 times first and a sweepstakes winner in Chicago, 1893; Mosey's Lad, 3 years sweepstakes bull in Toronto; and Topsman, first prize and sweepstakes gold medal in Toronto. Farm on Metropolitan Electric Railway, 15 miles north of Toronto and 3 miles from Richmond Hill and Thornhill stations on Northern branch of G. T. R. J. & W. RUSSELL, Richmond Hill, Ont.

Hillhurst Shorthorns.

Three Collynie-bred Bulls in service: Scottish Hero, by Scottish Archer; Joy of Morning, by Pride of Morning; Scottish Beau, by Silver Plate.

SPECIAL OFFER:

Three young bulls (registered), red, roan and white, 12 to 14 months old, bred from Cumberland, Gloucestershire and Canadian dairy strains, at farmers' prices and for farmers' purposes, to produce big-framed, deep-milking cows, and early-maturing beef steers. Write at once for prices and particulars.

Hackney Stallion, Rattling Shot 331 A. H. S. R., 6 years, 16 hands, 1,300 lbs., dark roan, black points, broken to harness, grand actor, and successful sire of promising carriage horses, mostly bays. Dan imported, 1 1/2 mile-an-hour roadster. Come and see him, or write for low price and particulars.

M. H. COCHRANE,

G.T.R., 117 miles east of Montreal. om- HILLHURST STATION, COMPTON CO., P. Q.

W. G. Pettit & Son, FREEMAN, ONT. IMPORTERS AND BREEDERS OF Scotch Shorthorns and Shropshire Sheep.

- OFFER FOR SALE: 12 Imported bulls, 12 mos. to 2 yrs. old. 5 " " " 9 to 12 mos. old. 20 " " cows, 3 to 6 yrs. old. 15 " " heifers, 2 yrs. old. 5 " " " 1 yr. old. 6 Home-bred bulls, 9 to 18 mos. old. 20 " " heifers, 1, 2, and 3 yrs.

Our imported bulls are now getting in good shape. All our heifers of suitable age are bred to Pure Gold (Imp.), by Cyprus, and Scotland's Pride (Imp.), a Cruickshank Clipper, by Star of Morning. Catalogues on application. All our imp. cattle were registered in the American Herd Book before the \$100.00 fee for recording was put on.

Burlington Junction Station, Telegraph and Telephone Offices, within half a mile of farm. om

T. DOUGLAS & SONS, STRATHROY, ONT. BREEDERS OF Scotch Shorthorns 100 HEAD TO SELECT FROM. Offer for sale 14 young bulls, and cows and heifers of all ages, of the most approved breeding, bred to (imp.) Diamond Jubilee = 28861 =, at head of herd. Farm one mile north of town, om

J. & W. B. Watt, SALEM, ONT., BREEDERS OF Clydesdale horses, Scotch Shorthorn cattle, Leicester and Oxford sheep, Berkshire pigs.

Our SHORTHORN herd was founded over 30 years ago, and contains such tribes as the Village Buds, Matchless, Missies, Mildreds, Stamfords and English Lady, upon which we have employed such bulls as Burdett Hero 324, Young Abbotsburn 6236, Challenge 2933, Perfection 9100, Lord Lansdowne (imp.) 2712, Clan Stuart 14381, Canada 19536, Sittytton Chief 17060, Royal Sailor (imp.) 18359, Royal George 28513, Clipper King 16293 and Judge 23419, all of which have been first-prize winners wherever shown. Royal Victor 34681 and Royal Wonder 34682, by Royal Sailor (imp.), and out of English Lady and Mildred dams, now head the herd, assisted by Roan Cloud 31317, by Lord Gloster 28995, and out of Melody 21992, a descendant of the Buckingham family. We are now offering young bulls, cows and heifers for sale, of Scotch type. Farm 2 miles from Elora Station, G. T. R. and C. P. R., 15 miles north of Guelph.

Rapids Farm Ayrshires.

REINFORCED BY A RECENT IMPORTATION of 20 cows, 2 bulls, and a number of calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Representatives of this herd won the first herd prize at the exhibitions at—

Toronto, London, and Ottawa, in 1900.

Come and see or write for prices. Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

Robert Hunter, Manager

for W. W. Ogilvie Co., Lachine Rapids, Quebec.

PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

Jas. McArthur, Goble's, Ont., in ordering a change in his advertisement, writes: "Our Shorthorns are coming through the winter in splendid shape. I sold the bull Bobs 31334 to Mr. G. F. Clump, Paris, Ont. I have three more, 10 months old, by imp. Sirius. There is great demand for Yorkshires. I sold everything but one boar 3 months old. We are getting lots of suckers for the spring trade. The Advocate is a splendid paper to advertise in. It sends back lots of good customers."

Last month Mr. Cameron, of Caledon, Ireland, who had been a large purchaser of the best class of Shorthorns at the Perth spring sale, visited the Collynie herd and purchased from Mr. Duthie, at a high price, on behalf of Mr. Kirker, Craigavad, County Down, the highly-bred rising two-year-old Shorthorn bull, Royal Windsor, bred by Her late Majesty the Queen, and by Robin-Nonpareil, from a dam by the famous Bamockburn. Royal Windsor was the pick of the Windsor calves in 1880, and was purchased privately by Mr. Duthie in the spring of last year for service at Collynie. He is a bull of beautiful quality, very true and just in his shapes, and with a fine cover of hair; he is also very well bred, his sire being by Roan Robin, from a Cumberland cow, while his dam is of the well known Beaufort family, which produced the celebrated 1000-guinea bull, New Year's Gift. Mr. Duthie had intended keeping Royal Windsor as a successor to Scottish Archer, and it was only an exceedingly tempting offer that induced him to part with him.

A RECORD SALE OF DODDIES.

On March 6th to 8th, in Chicago, at the dispersion sale of Aberdeen-Angus cattle belonging to Messrs. Chas. Escher & Son, Botna, Iowa, the average price of \$479.93 for 143 head was made. This is said to be the highest average ever made on a like number of pedigreed cattle of any breed, only one animal in the whole list selling below \$200. Six animals sold at prices ranging from \$1,000 to \$1,700, and 34 for \$500 and upwards. The highest price for a female was \$1,700 for imp. Krivinia, a 2-year-old heifer, bought by Cantine Bros. & Stevenson, Holstein, Iowa. The highest for a bull, \$1,300, for the 4-year-old (trip of Longbranch, bought by A. C. Bennie, Alta, Iowa. Seventeen bulls averaged \$463.95; 117 cows and heifers, \$483.05. One hundred and forty-three head brought \$68,630, an average of \$479.93.



90 HEAD

High-quality, Early-maturing Herefords. Prizewinners. Young bulls, cows, heifers.

The blood of "Corrector," "Eureka," "Ancient Briton," and "Rupert," on an "Anxiety" foundation. Send for illustrated catalogue.

H. D. SMITH, COMPTON, QUE.

FOR SALE: Hereford Bull, Santiago, Register 956, 3 years old; very lengthy, low-set fellow—a fine sire; very gentle. Apply to **J. BERGEN, Cornwall, Ont.**

Thoroughbred 3-year-old **HEREFORD BULL FOR SALE.** **W. R. COLEMAN, Cookstown, Ont.**

For Sale: High-class Ayrshires.

1 choice bull, 11 months old, from prizewinning dam and sire. A few young females of different ages. Calves of either sex, from 6 months to 2 weeks, sired by our imported bull, Caspian of St. Anne's, and White Cockade. **ALEX. HUME & CO., Menie, Ont.**

CHOICE AYRSHIRE BULLS.

OFFER: 2 bulls, 12 months old; 2 bulls, 8 months old; and 3 bulls, from 3 to 5 months. All off imported and heavy milking stock.

W. W. BALLANTYNE, STRATFORD, ONT. (My recent importation of 30 head has just arrived home from quarantine. Herd now numbers over 120 head.)

Standard Sheep Dip (OIL OF TAR.)

Non-poisonous, cheap and effective. Destroys Scab, Lice, Ticks, Foot Rot, etc.

Write for Testimonials and Circulars.

Manufacturers: **The West Chemical Company, TORONTO, ONT.**

For Contagious Abortion use West's Fluid.

Get for Name: **W. R. ROWAN, 131 PRINCESS ST. WINDSOR.**

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS.

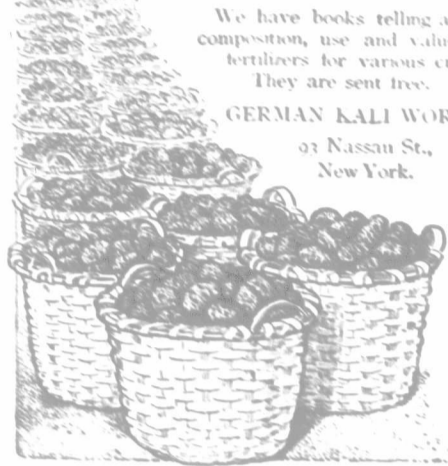
We are offering 8 young bulls for sale of first-class quality and all breeding. **Wm. Gresham & Son, London, Ont.**

PLEASE MENTION FARMER'S ADVOCATE.

Two hundred bushels of potatoes remove eighty pounds of "actual" Potash from the soil. Unless this quantity is returned to the soil, the following crop will materially decrease.

We have books telling about composition, use and value of fertilizers for various crops. They are sent free.

GERMAN KALI WORKS, 97 Nassau St., New York.



R. Mitchell & Son,

Burlington Jet. Station, Nelson, Ontario.

Large herd of Scotch and Scotch-topped Shorthorns of the most popular Aberdeenshire tribes, including 1 imp. bull, 12 imp. cows and heifers. Also a number of home-bred yearling and two-year-old heifers, and 7 good, thrifty home-bred bulls, from twelve to fifteen months old. Write for catalogue.

Shorthorn Bulls

TWO excellent young bulls: one 2 yrs. in May, and one 1 yr. in Mar. Bred straight from high-class Scotch-bred bulls and Scotch-topped cows, of good milking families. Write for prices, or come and see for yourself.

GEO. MILLER, Markham, Ont.

Shorthorn BULLS AND HEIFERS FOR SALE.

Choice quality and best Scotch breeding. Imported and home bred. Imported Knuckle Duster (2793) and imp. Royal Prince head the herd, which has furnished the Provincial Fat Stock Show champion three out of the last five years. Catalogues on application.

H. SMITH, HAY, ONT. Exeter Station on G. T. R., half a mile from farm.

ARTHUR JOHNSTON

Greenwood, Ontario, Canada.

HIGH-CLASS SCOTCH SHORTHORNS

(First Importation Made in 1874.)

(My recent importation of 30 head has just arrived home from quarantine. Herd now numbers over 120 head.)

OFFERS FOR SALE

- 40 Imported Cows and Heifers,
- 40 Home-bred Cows and Heifers,
- 11 Imported Bulls and Bull Calves,
- 13 Home-bred Bulls and Bull Calves.

Railway stations—Pickering, on main line of Grand Trunk Railway, 22 miles east of Toronto, and Claremont, 23 miles east of Toronto, on the C. P. Railway. Catalogues on application.

SPRINGBANK FARM.

Shorthorn Cattle, Oxford Sheep, and Bronze Turkeys. Young bulls for sale.

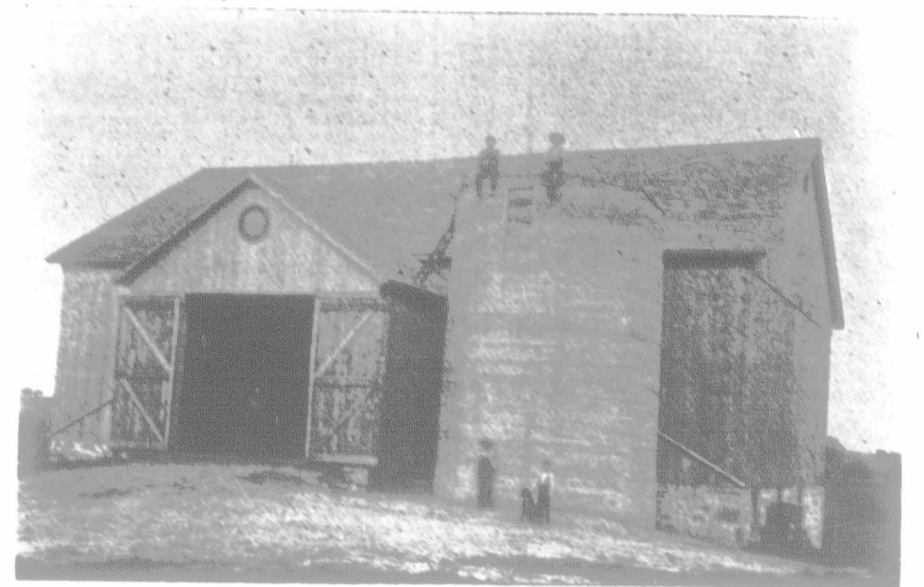
JAS. TOLTON, WALKERTON, ONT.

5 Shorthorn Bulls 5

From ten to twenty months. Good animals and well bred. Three reds and two roans. Any one wishing to see them will be met at town station by shipping a card.

HUGH THOMSON, BOX D, ST. MARY'S, ONTARIO.

AN EVERYDAY SILO
BUILT BY JAMES MCINTOSH, OF SEAFORTH, ONT., WITH
Thorold Cement



SILO OF JAMES MCINTOSH, SEAFORTH, IN PROCESS OF CONSTRUCTION. BUILT ENTIRELY WITH THOROLD CEMENT.

Read what Mr. McIntosh says of this Work:

ESTATE OF JOHN BATTLE, Manufacturers of Thorold Cement, THOROLD, ONT.:

SEAFORTH, ONT., Dec. 11, 1900.
DEAR SIRS,—The cut shown is the Cement silo of Mr. James McIntosh, Seaforth, Ont., built with **BATTLE'S THOROLD CEMENT**, by Mr. A. E. Hodgert, July, 1900. Total cost, \$160. Size, 14 feet inside diameter; 30 feet high; 8 sided; 82 barrels of Cement in paper sacks; 50 cubic yards gravel; 3 cubic yards stone; 3 1/2 days labor for one man; Cement mixer 9 days; walls 14 inches thick at bottom; top, 7 inches. The walls are all right, without a crack in them. I must say that by using A. E. Hodgert's cement mixer I built my silo 20 cheaper than if we had not had it.
Very sincerely,
JAMES MCINTOSH.

Estate of JOHN BATTLE, Thorold, Ont.

A QUICK, SHARP CUT hurts much less than a bruise, crush or tear. Done with the **DEHORNING KEystone KNIFE** is the safest, quick, sharp cut. Cuts from four sides at once. Cannot crush skulls or tear. Most humane method of dehorning known. Took highest award World's Fair, for five circulars before buying. Owned and Manufactured by **R. H. McKENNA, V.S., Pictou, Ont.** THE LATE A. C. BROSIUS' PATENT.

FOR SALE: Shorthorn Bulls, Cows and Heifers, carrying a combination of Scotch top crosses, and tracing through many popular strains on the dam's side. **F. A. Gardner, Britannia, Ont.**

Shorthorns FOR SALE:

12 young bulls, 10 yearling heifers and heifer calves, 16 2-year-old heifers and young cows, several well advanced in calf to Precious Stone (imp.). Prices moderate. Write for particulars. **G. A. BRODIE, Bethesda, Ont.**

JOHN DRYDEN, BROOKLIN, ONTARIO,

OFFERS SIX YOUNG SHORTHORN BULLS, ready for service, at reasonable prices. Strong, active, masculine.

GOOD QUALITY AND CHOICE BREEDING.

J. R. McCallum, Iona Station, Ont. Offers young SHORTHORN BULLS and HEIFERS, of choice breeding, at reasonable prices. Iona St. on M.C.R., half a mile from farm.

YOUNG SHORTHORNS FOR SALE

Our present offering includes several choice young bulls fit for service, sired by "Scotland Yet," and out of Warfare (imp.) dams; also bull calves, from Blue Ribbon (imp.), and out of Royal George cows. Inspection and correspondence solicited.

A. & D. BROWN, M. O. RAILWAY, IONA, ONTARIO.

WOODSLEE STOCK FARM.

FOR SALE: 3 Shorthorn bulls, 15 months old, two reds and one roan. Well developed, healthy, and thick fleshed.

S. G. LITTLE, Hagerman, Ont., W. PATER, Manager, Unionville Station, G. T. R.

PLEASE MENTION FARMER'S ADVOCATE.

SHORTHORN CATTLE AND LINCOLN SHEEP.

Imp. Prime Minister at head of herd. Seven young bulls for sale—good ones. Also a few females. Stud rams all imported from H. Dudding, Esq.; the same blood as the 1000-guinea ram.

J. T. GIBSON, DENFIELD, ONT.

6 Shorthorn Bulls 6

Also cows in calf and yearling heifers. All of straight Scotch breeding. **SHORE BROS., WHITE OAK, ONT.**

FOR SALE: SHORTHORNS AND YORKSHIRES—

4 SUPERIOR Scotch-bred Shorthorn bulls, 12 to 14 months; 1 two-year-old heifer of the best strains; and cows with calves at foot. Also a superior lot of Yorkshire boars and sows from 3, 5 to 7 months old. Orders booked for spring pigs. Pairs and trios supplied not akin.

H. J. DAVIS, BOX 290, WOODSTOCK, ONT.

FOR SALE: SHORTHORN BULLS AND HEIFERS

from such sires as Mariner (imp.), Royal Judd 17199, Sultan Selam (imp.), Grenadier 26231, and Roseville Abott 30874, on a Victoria foundation. Also one extra Kinellar Stamp 10-mos. red bull. Come or write. **HURON COUNTY, THOS. CUDMORE & SON, EXETER STATION, Hurondale, and Telegraph Office, Ontario.**

Maple Lodge Stock Farm ESTABLISHED 1854.

SHORTHORNS—Grand young bulls and heifers for sale. We have the first-prize milking strains. Imported Knuckle Duster and imported Sir Wilfred in service.

LEICESTERS—First-prize flock of Canada for past six years. Imported and home-bred for sale.

ALEX. W. SMITH, MAPLE LODGE P. O., ONT.

Bonnie Burn Stock Farm

Forty rods north of Stouffville station, Ont., offers 5 Shorthorn bulls and some heifers, 30 Shropshire rams and ewes from imp. and Canadian-bred sires, at reduced prices.

D. H. RUSSELL, Stouffville, Ont.

SHORTHORNS AND BERKSHIRES.

Young bulls, six to twelve months old; cows and heifers. Berkshires (various ages, either sex), and Embden geese. MAC, CAMPBELL, Northwood, Ont.

SHORTHORNS, COTSWOLDS, BERKSHIRES and BARRED PLYMOUTH ROCK FOWLS

FOR SALE.—One yearling bull and 5 bull calves, a few cows and heifers, 7 shearing rams. Barred Rock eggs at 75c. per 13, \$2 for 50, \$3.50 per hundred. No other variety of fowls kept.

F. BONNYCASTLE & SONS, Campbellford P. O., Ont.

SHORTHORNS FOR SALE

Cows and heifers, also a few young bulls. I have employed sons of Lord Lovel, Royal Member, Perfection, Indian Chief, and Clau Campbell, on Lord Lovel and Abbotsburn females.

WM. HAY, TARA, ONT.

SHORTHORN BULLS FOR SALE.

We have Cruickshank Lovely, Fashions and Stamford females, and Matchless females bred by J. & W. B. Watt, Salem, Ont., with Lovely Victor 22170 at the head. T. MERCER, MARKDALE, ONT.

SHEEP BREEDERS' ASSOCIATIONS

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana.

SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstakes at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Topman—17847—, champion at Winnipeg, Toronto, London and Ottawa, 1899. High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply

T. E. ROBSON, Ilderton, Ont.

High-class Shorthorns and Yorkshire Pigs.

Just now three 10-months bulls, got by imp. Sirius 13281, great big massive fellows with lots of flesh and quality—away above the average. Also a few superior young cows in calf, and 5 or 6 heifers. We are booking orders now for the spring trade. Can ship same in six weeks.

JAS. McARTHUR, GOBLE'S, ONT. Goble's Station, G. T. R., 10 miles east of Woodstock, 2 miles from farm. Visitors met.

Maple City Jerseys.

One Jersey bull two years old. Some very choice bull calves from 2 to 3 months old, and a few high-grade heifers and heifer calves. All of the choicest breeding. Write for prices.

Box 552. W. W. EVERITT, Chatham, Ont.

GLEN ROUGE JERSEYS.

WILLIAM ROLPH, Markham, Ont., offers twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right.

Butter Jerseys

But I have others fully as good, or better. Heifers from 4 months up to 2 years. Several sows due to calve. Another, e.g., daughter of old Massena, 10 months old. Three fresh young cows, grand udders. One yearling bull. One aged bull. No young bull calves left, but more to come.

MRS. E. M. JONES, Box 324, Brockville, Ont.

HOLSTEINS FOR SALE.

I am now offering Holstein calves of both sexes, out of such cows as Panarista Pauline, Inka Darkness 3rd's Jessie DeKol, DeDuckert's DeKol, Belle Burke, Meschuhle, Pieterie Hartog DeKol, and others, all closely related to DeKol 2nd and Netherland Hengerseld, the greatest of Holstein cows.

J. A. CASKY, Madoc, Ont.

Maple Hill Holstein-Friesians

SPECIAL OFFERING: Three very fine bull calves, 2 to 11 months old. Also several extra good young cows and heifers. Prices moderate. Visitors welcome.

HARRISBURG STS., G.T.R. G. W. CLEMONS, ST. GEORGE P.O., ONT.

Maple Glen Stock Farm.

The home of officially tested, Advanced Registry, dairy test and showing-winning herd of SYLVIA HOLSTEINS, of Carman Sylvia now for sale. Price is in keeping with breeding and performance.

C. J. GILROY & SON, Brockville, on C.P.R. or G.T.R. Glen Buell, Ont.

Chicago Sheep Shearing Machine

Illustration of a sheep shearing machine with text: 'Price \$15. Guaranteed to shear any kind of wool that grows. All costs cut from the cost of metal and hardware. HOOK ON SHEARING. Illustrated by K. M. Murphy, Chicago, Ill. CHICAGO FLEXIBLE SHAFT CO. 158-160 Huron Street, Chicago, Ills.'

WHERE ARE THE BEST HOLSTEINS?

Have you read of Lillith Pauline DeKol's wonderful record? Her sire was bred here. Have you read of Susie DeKol's record? She was sired by a son of our great cow, DeKol 2nd. We can give our customers more of the blood of the greatest producers than can be found in any other herd. Look over official reports and see where the sires of the great producers were bred. We have over 30 young bulls for sale, and a large number of females. Animals shipped to Canada are accompanied by certificate of health, and are subject to no duties or quarantine. If you want the best, write or visit.

BROOKSIDE HERD, on H. Stevens & Sons, Lacona, Oswego Co., N.Y.

Maple Cliff Dairy and Stock Farm.

AYRSHIRE CATTLE, IMPROVED BERKSHIRE AND TANWORTH PIGS.

FOR SALE: 5 bull calves, a few heifers, young pigs, pairs not akin; 2 boars, 4 months old; young pigs. Farm adjoins Central Experimental Farm, Ottawa.

R. REID & CO., Hintonburg, Ont.

Choice Ayrshires, AND BARRED ROCK EGGS.

3 BULLS, from 7 to 17 months old; also a few COWS AND HEIFERS.

Eggs for hatching, from choice matings, at \$2.00 per 15. Incubator eggs \$4.00 per 100.

JAS. McCORMACK & SON, ROCKTON, ONTARIO.

For Sale: Six Ayrshire bulls, ranging from 5 months to 1 year past. Also a few cows and heifers, thoroughbred fowls, and Scotch collie dogs.

WM. STEWART & SON, MENIE, ONT.

TREDINNOCK AYRSHIRES

Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchenbrain, and Lord Dudley. Forty imported females, selected from leading Scotch herds, and their produce from above-named bulls. Size combined with quality and style, well-formed udders, good-sized teats, and capacity for large milk production. Bull calves for sale; also a few young cows and heifers. For prices and particulars, address

JAMES BODEN, Mgr., St. Anne de Bellevue, Quebec, G.T.R. & C.P.R., 20 miles west of Montreal.

NETHER LEA AYRSHIRES, BERKSHIRES, YORKSHIRES, AND ROUGH-COATED COLLIES.

I expect to import from Europe, in the near future, and can look orders for stock on commission, as I have a good connection in England and Scotland.

T. D. McCALLUM, Danville, Que.

Metal Shingles and Siding advertisement with illustration of a house and text: 'METAL SHINGLES, METAL CEILINGS, METAL SIDING. ASK FOR FREE SAMPLES CATALOGUE AND ESTIMATES. Use metal inside and outside and your building will be warm and dry, lightning, fire, wind and weatherproof, possessing a beautiful appearance at small cost. METAL SHINGLE & SIDING CO. LIMITED, PRESTON, ONT.'

At a combination auction sale of Herefords at Kansas City, Mo., Feb. 19th and 20th, comprising drafts from six herds, 101 head sold for an average of \$237.

GOSSIP.

At the auction sale of Berkshire hogs drafted from the Biltmore Farm's herd at Biltmore, N. C., on Feb. 12th, 31 head sold for an average of \$102. Prices ranged from \$51 to \$250, the highest price being paid for Luster's Topper II, by Guy C. Barton, Omaha, Neb.

C. S. Barclay & Son, West Liberty, Iowa, on March 14th and 15th, sold at auction 99 head of Shorthorns, at an average of \$288; the 73 females averaging \$308. Two cows sold for \$1,000 and \$1,110, and only one animal sold below \$100, and 15 brought over \$300 each. Twenty-seven Scotch females made an average of \$25, and 10 Scotch bulls an average of \$226.

Mr. Alex. Galbraith, Janesville, Wis., whose advertisement of Clydesdale stallions is running in this paper, writes us that, for the convenience of his Canadian customers, he has opened a branch sale barn at Woodstock, Ont., under the management of Mr. S. P. Thompson, a gentleman well and favorably known throughout the Province in connection with the stallion business. A few first-class stallions have already been sent there, and several others will follow in a few days. Those of our readers interested will do well to inspect these horses, which Mr. Galbraith says are all guaranteed and strictly first class.

SUCCESSFUL SALES OF SHORTHORNS.

At Kansas City, Mo., March 3th, was held a draft sale of Shorthorn cattle from the herds of Messrs. T. J. Wornall, West Liberty, Mo., and J. G. Robbins & Sons, Horace, Ind., the former selling 40 head at an average of \$346.12, and the latter firm 20 head at an average of \$376.50. The highest price, \$1,190, was paid by Mr. W. D. Platt, Hamilton, Ont., for Mr. Wornall's 4-year-old show cow, Lady Valentine, by St. Valentine, the champion show bull who was bred in Canada by the Messrs. Gardhouse, Highfield, Ont. Mr. Geo. E. Ward of Hawarden, Ia., who owns her sire, was a competing bidder to the last. The second highest price, \$905, was paid by E. W. Bowen, Delphi, Ind., for the red 2-year-old Warden Secret, from the same herd. The third highest price was \$890, paid for Robbins' red yearling heifer, Imp. Graceful Rose, by Scotch Thistle, bought by H. Gilchrist, Hope, Ind. Eight hundred dollars was the highest price for a bull, and was paid by J. E. Prather, Williamsville, Ill., for the red 10-months calf, Secret Prince of Fairview, of Mr. Wornall's offering. Three hundred and fifty dollars was the next highest price for a bull.

On the following day consignments from the herds of Messrs. E. K. Thomas and Abram Renick, of Kentucky, were sold, the offering of the former, 13 females and 1 bull, making an average of \$271, and Mr. Renick's 21 head an average of \$163.30.

USHER & SON'S SHORTHORNS.

Messrs. Isaac Usher & Son, on their 30-acre farm at Queenston, Ont., where they quarry and grind the famous Queenston cement at the rate of 400 barrels a day, have established a strong herd of about 70 head of registered Shorthorn cattle, at the head of which is the choice roan 3-year-old bull, Lord Gloster—sired by the champion prize bull, Abbotsford, son of the imported Cruickshank cow, Village Blossom, dam of Young Abbotsburn, champion bull of all beef breeds at the World's Fair at Chicago. The dam of Lord Gloster is Gaiety, of the Cruickshank Duchess of Gloster family, and she was got by Prince Albert, a son of the famous Hampton Hero, who was himself a championship winner and sire of many champions. He was a pure Cruickshank bull, his sire and dam being bred at Sixtyton, the latter being a daughter of Champion of England, the greatest bull ever used in the Cruickshank herd.

Among the females of the herd are representatives of many well-known and favorite families of the dual purpose class, the cows as a rule being good milkers, and all of the good-feeding sort, which put on flesh rapidly when dry. The top crosses in their pedigrees show the names of many noted Scotch-bred bulls, such as the Kinellar-bred Killerby—637 imp.; Cavalier—2293, by the Cruickshank sire, Cityton Chief, by Hospodar; Imp. Blue Ribbon—1706, bred at Kinellar; Strathelyde—20078, a Strathallan, by Imp. Duke Lavender; Crimson Chief, a Kinellar Crimson Flower, by the famous Imp. Indian Chief, bred by Cruickshank; Imp. Guardsman, noted as a sire of prizewinners; Mysie's Chief, a Kinellar Mysie, by a son of Indian Chief; and Mina King, a Kinellar Mina. Such an array of noted bulls, figuring in the breeding of a herd must necessarily have made a strong impression in shaping the type of their offspring, and their influence is plainly seen in the general character of the cattle. In the large new barns, with cement concrete walls from floor of basement stables to eaves of roof, provision is made for the healthy housing of a large herd. The Usher patented system of ventilation is in use, having been thoroughly tested and found entirely satisfactory. This system, which has been frequently discussed in the ADVOCATE, consists of a series of tile pipes running through an opening in the wall at the end of feed passage. This tile pipe is tapped opposite the manger of each stall by a gas pipe which opens at the partition between each pair of cows, and these pipes are covered at the openings with perforated caps which admit the air by a spray. As the temperature rises in the stable, the heated air escapes by the 4x10-inch ventilators running up through the roof, thus making room for more fresh air. The stable, when all doors and windows are closed, has been by this system kept at a uniform temperature of 45 to 55 degrees during the present winter. Mr. Usher, Sr., has built and occupies an elegant dwelling house, the walls of which from cellar floor to chimneys are built of cement concrete, which is durable, dry and in every way satisfactory, drafts at sides of doors and window panes being entirely avoided, as the concrete is closely pounded down to the frames and sets solid, leaving no air spaces. Cement is evidently bound to be more largely used than ever in the construction of farm buildings, floors and silos, and the demand increases each year. Messrs. Usher, on application, send circulars giving full instructions for mixing and building with concrete, and also prepare plans for laying out stables, either in new or old buildings. See their advertisement of cement and Shorthorns.

A Good Deal of Nonsense

About "Blood Purifiers" and "Tonics."

Every drop of blood, every bone, nerve and tissue in the body can be renewed in but one way, and that is, from wholesome food properly digested. There is no other way, and the idea that a medicine in itself can purify the blood or supply new tissue and strong nerves is ridiculous, and on a par with the fabled story that dyspepsia or indigestion is a germ disease, or that other fallacy that a weak stomach which refuses to digest food can be made to do so by irritating and inflaming the bowels by pills and cathartics.

Stuart's Dyspepsia Tablets cure indigestion, sour stomach, gas and bloating after meals, because they furnish the digestive principles which weak stomachs lack, and unless the deficiency of pepsin and diastase is supplied it is useless to attempt to cure stomach trouble by the use of "tonics," "pills," and "cathartics," which have absolutely no digestive power, and their only effect is to give a temporary stimulation.

One grain of the active principle in Stuart's Dyspepsia Tablets will digest 3,000 grains of meat, eggs and similar foods, and experiments have shown that they will do this in a glass bottle at proper temperature, but, of course, are more effective in the stomach.

There is probably no remedy so universally used as Stuart's Tablets, because it is not only the sick and ailing, but well people, who use them at every meal, to insure perfect digestion and assimilation of the food.

People who enjoy fair health take Stuart's Tablets as regularly as they take their meals, because they want to keep well. Prevention is always better than cure, and Stuart's Dyspepsia Tablets do both: they prevent indigestion, and they remove it where it exists. The regular use of one or two of them after meals will demonstrate their merit and efficiency better than any other argument.—Adv't.

Ayrshire Bulls: Write to J. YUILL & SONS, Carleton Place.

for special prices on Ayrshire bulls from 1 1/2 years to 6 months. Four over 15 months, fit for service, from special milking stock. Sired by prize bull, Jock of Burnside—1684—, also females of all ages. Shropshire sheep of all ages; a number of fine ram lambs. Berkshire pigs of either sex, of the best bacon type. B. P. Rocks.

Fairfield Lincolns.

The partnership heretofore existing between J. H. Patrick and Eugene Patrick, of Ilderton, Ontario, as to the management of Fairfield Stock Farm, has been dissolved. J. H. Patrick again resumes full management at Fairfield, and Eugene Patrick taking charge at Lincoln Grove, Tecumseh, Idaho.

J. H. & E. PATRICK, Ilderton, Ont.

WOOL, HIDES AND SKINS.

HIGHEST MARKET PRICES. E. T. CARTER (SUCCESSOR TO JOHN HALLAM). At the old stand, 83 and 85 Front St. East, TORONTO.

Dorset Horn Sheep

THE largest flock in America. The most celebrated prizewinners at the Columbian Exhibition and Canadian exhibitions. Contains more Royal winners than any other. Awarded 5 out of 8 first prizes at Toronto, London and Ottawa in 1900. Flock of 300. Stock for sale always on hand.

John A. McGillivray, Uxbridge, Ontario.

BROAD LEA OXFORDS.

We have at present a number of good ewe and ram lambs. Also some choice young ewes dropping lambs in April for sale. Correspondence solicited. Visitors welcome.

Henry Arkell & Son, Teeswater, Ont.

W. H. BEATTIE, Wilton Grove, Ontario, IMPORTER AND BREEDER OF Shropshire sheep, collie dogs, White Holland and Mammoth Bronze turkeys, and Barred Rocks.

FAMOUS ALL OVER THE WORLD ALFRED MANSELL & CO., LIVESTOCK AGENTS AND EXPORTERS, SHREWSBURY.

BRITISH STOCK selected and shipped to all parts of the world. Write for prices to ALFRED MANSELL & CO., Shrewsbury, England, or to our American representative, Robert Miller, Stouffville, Ont., Canada.

W. W. Chapman,

Secretary of the National Sheep Breeders' Association, Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society.

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.

Address: FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W. Cables—Sheepcote, London.

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Always Fresh.
Always the Best.

FERRY'S SEEDS

are sold everywhere.
1901 Seed Annual free.
D. M. FERRY & CO., WINDSOR, ONT.

The Finest Spray is produced with

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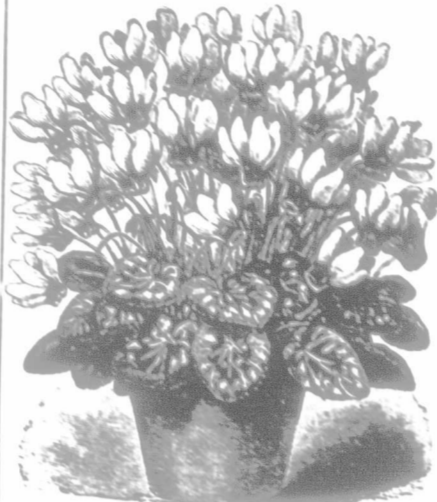
Compressed Air 3 gal. Sprayers. Tested to 60 lbs. pressure. Has safety valve—will not burst. Throws a continuous stream 35 feet if desired. Guaranteed the best 3 gal. Comp. Air Sprayer made, or money refunded. Made both in copper and galv. iron. Write for circular. Nothing else so good for whitewashing poultry houses, stables, etc. We also make Lice Killers, Fly Remover and Feed Cookers. Agents make big money selling these and our other specialties. Write for special terms and prices to dealers and agents.

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Grafton, Illinois,
Canada Factory,
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SEEDS Any 10 Packets 25c.

TAKE YOUR CHOICE. BY MAIL POSTPAID.
GUARANTEED FULL SIZE PACKAGES.
MONEY REFUNDED IF NOT SATISFACTORY.



2 Bulbs Giant Cyclamen, only 25c.

- VEGETABLES.**
ORDER BY NUMBER.
1. BEANS, Golden Wax.
 2. BEET, Eclipse, round.
 3. BEET, Egyptian, flat round.
 4. BEET, Long Smooth Blood.
 5. CABBAGE, Wittingstadt.
 6. CABBAGE, Fottler's Brunswick.
 7. CARROT, Half-Long Danver's Scarlet.
 8. CARROT, Gem or Oxheart.
 9. CAULIFLOWER, Early Paris.
 10. CELERY, Golden Self-Blanching.
 11. CORN, Early Minnesota.
 12. CORN, Stowell's Evergreen.
 13. CUCUMBER, Chicago Pickling.
 14. CUCUMBER, Long Green.
 15. CUCUMBER, White Spine.
 16. HERBS, Sage.
 17. HERBS, Savory.
 18. HERBS, Marjoram.
 19. LETTUCE, Nonpareil.
 20. LETTUCE, Denver Market Hackensack.
 21. MUSK MELON, Early Canada.
 22. WATER MELON, Early Canada.
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 24. ONION, Yellow Danvers.
 25. ONION, Silverskin.
 26. PARSLEY, Moss Curled.
 27. PARSNIP, Hollow Crown.
 28. PEAS, First and Best.
 29. PEAS, McLean's Little Gem.
 30. PEPPER, Ruby King.
 31. PUMPKIN, Large Cheese.
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 33. RADISH, French Breakfast.
 34. RADISH, Long Scarlet.
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41. ALYSSUM, Sweet.
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 55. SWEET PEAS, Fine Mixed.
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 58. ZINNIA, Mixed.

WE SEND FREE with every order 1 Package New Royal Carnations (Price 20c.) and in return ask you to tell your friends of this Liberal Offer. It's not much trouble and may help us.


ADDRESS ALL ORDERS **WM. RENNIE, TORONTO.** REMIT CASH WITH ORDER.

In every town and village may be had, the

Mica Axle Grease

that makes your horses glad.

Made by Imperial Oil Co.




Berkshires—Large, lengthy, English type. Five first-prize boars in service. Spring pigs ready for shipment. Boars fit for service. Sows ready to breed. **GEORGE GREEN,** Fairview, Ont.

Snelgrove Berkshires.

We have a number of large, lengthy sows, to farrow in March and April, and will have young pigs for sale of the type now wanted. Now is a good time to order. Can supply pairs not akin, as we have four high-class boars of different breeding in service. Write for prices.

SNELL & LYONS, Snelgrove, Ont.

FRESH BERKSHIRE BLOOD.

Have secured the first choice of the champion gold medal herd of America (which won over 400 prizes, cups and medals), including the \$100 show sow, Elphick's Matchless (never beaten), and other sweepstakes sows in the United States. Also 15 April, May and June boars and 15 sows of the same age, and 3 fall litters, selected to meet the best Canadian demand, being long, low, and extra good through the heart.

Farm within 10 minutes' walk of electric R. R. terminus on Kingston road. **DURHAM & CAVAN, East Toronto, Ont.**

OAK LODGE YORKSHIRES

ARE THE CORRECT TYPE TO BRING THE GREATEST PROFIT.



We breed our winners, and we win more prizes than all other herds combined at Toronto, London, and other large shows. Sweepstakes in bacon competition over all other breeds in dressed carcass competition, also on foot, for two years in succession. Championship carcasses in bacon class at Chicago, 1900. First-prize herd at Toronto Industrial for nine years. Write for prices.

Brethour & Saunders, Burford, Ont., Can.

JOS. FEATHERSTON & SON,
IMPORTERS AND BREEDERS OF
LARGE YORKSHIRE AND ESSEX SWINE.

We have some nice young boars and sows fit for service, for sale. Also one imported boar, 8 months old, and have 9 imported sows in farrow and 2 more to be bred for June litters, besides a number of home bred sows. One imported stock was selected personally from the well-known herds of Philip Ascroft, Rufford, T. Heuson, Peterboro, Yorkshire; D. R. Daybell, and Sir Gilbert Greenhall, Bart., Walsen Hall, Warrington, England. Correspondence solicited. Streetsville, P. O., and Telegraph.

A BARGAIN. Young Toulouse Gander, 3 firsts and special last fall, \$3. Trio Pekins, \$3. 10 lb. Barred and White Rocks, \$1 to \$2. Write your cards to **ROBERT STEVEN, Petrolia, Ont.**

Summer Hill Herd
HEADQUARTERS FOR THE IDEAL BACON HOG AND EASY FEEDERS.



The largest herd of imported and Canadian-bred Yorkshires in America. Out of 121 exhibits at the leading shows in '99 and 1900, including Toronto and London, we gained 116 awards. Expert judges both at London and Toronto were unanimous in pronouncing our herd far superior to that of our strongest competitors. Won most of the best prizes offered, including first prize for best pen of pure-bred bacon hogs, also grand sweepstakes over all breeds in a class of 13 entries. The foundation of our herd was laid by personally selecting the choicest stock from the most noted breeders in England and Scotland. We have the ideal bacon type—size without coarseness, and easy feeders. Pigs of all ages for sale at moderate prices. Write us for particulars. Telephone, Millgrove, Ont. Telegraph 254 Bay St. S., Hamilton, Ont.

D. C. Flatt & Son, Millgrove, Ont.

THE IMPROVED
U.S. CREAM SEPARATOR

Has fully established its position as
THE STANDARD SEPARATOR OF THE WORLD.

It has repeatedly beaten in competitive tests all other kinds of Cream Separators.

At the National Buttermakers' Convention
At St. Paul, Minn., Feb. 18-23, 1901, with 229 packages in competition,
United States Separator Butter Scored the Highest, 90 Points,
made by Edward H. Webster, Ames, Iowa, and entered for scoring only.

The Third Best Butter was also U. S. Separator Butter, made by W. R. Lund, Plainview, Minn.; score, 96 points.

The Gold Medal for Highest in Gathered Cream Class
was also the product of
United States Separators and Cooley Creamers,
made by W. C. Noble, South Waterford, Me.

Our "would-be competitors," the DeLaval Separator Co., advertise that they had 688 entries to 19 U. S. entries—35 chances to 1. Notwithstanding this

THE UNITED STATES PRODUCT SCORED THE HIGHEST, SCORED THIRD HIGHEST, AND GOT A GOLD MEDAL TO ITS HONOR. WHAT GREATER VICTORY COULD ANY ONE ASK FOR?

The United States Separator Stands Triumphant.

Ask for circular with full particulars and illustrations.
Made in all sizes, from 150 lbs. to 3,000 lbs., or more per hour. Write for illustrated circular giving full particulars.

VERMONT FARM MACHINE CO.,
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There is no duty on Improved U. S. Separators shipped into Canada.

In Manitoba and the Northwest Territories correspondence may be addressed to **WM. SCOTT, 206 Pacific Avenue, Winnipeg,** General Agent for that territory, who is also prepared to handle, to shipper's advantage, fresh Dairy Butter made by users of Cream Separators.

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"What we have we'll hold"
As every man who has purchased Page Fencing knows he has the best Fence on the market.


"What we hav'nt we're after"
and if you are in the market for fencing we would like to have you consider the merits of the "Page" Fence. Coiled Wire, made in our own Wire Mill, woven by ourselves. Shipped already to put up.

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"D. ROSS, Box 553, Winnipeg, General Agent. Fence in Stock."

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ONCE IS SUFFICIENT.



Kills the eggs, cures scab, improves the wool. **35c.** Tin sufficient for 20.

HUGH MILLER & CO.,
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"RAPID-EASY" GRINDERS

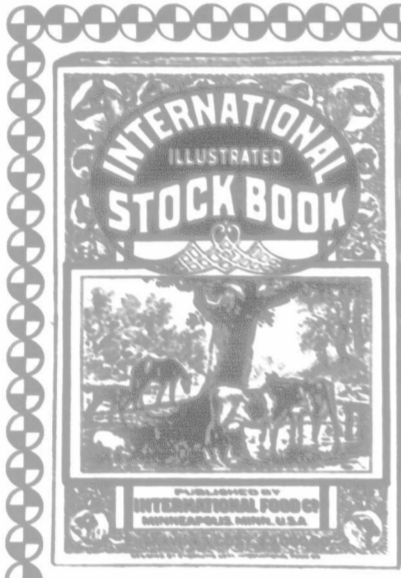
Can do for you what they are doing for others - grind MORE grain with the SAME POWER than ANY OTHER GRINDER.

Made for use with Tread Power, Sweep Power, Windmill or Steam Engine.

Perth, Ont., Feb. 26th, 1901. I bought one of your No. 2 Rapid-Easy Grinders from your agent, Mr. John Dittrick, and I must say that it more than pleased me, and exceeds my expectations. It is noiseless, RUNS EASY, grinds FAST; there is no bother with it. On one occasion we brought from our granary what we considered a good day's grinding, but to our surprise we were done BEFORE TWO O'CLOCK, and it took two men, doing ALL THEY COULD, to carry the grain fast enough to keep the grinder going. I do not say this for any blow, but am just speaking of the machine as I found it. I got the machine on trial. We have used other grinders, but NONE TO COMPARE WITH THIS.

JAMES MACLAREN. [NOTE.—Mr. MacLaren is son of Senator MacLaren, of Perth.]

J. FLEURY'S SONS, Aurora, Ont. -om Medals for Plows: World's Fair, Chicago, '83; Paris, 1900.



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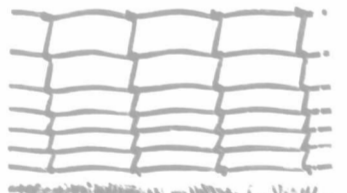
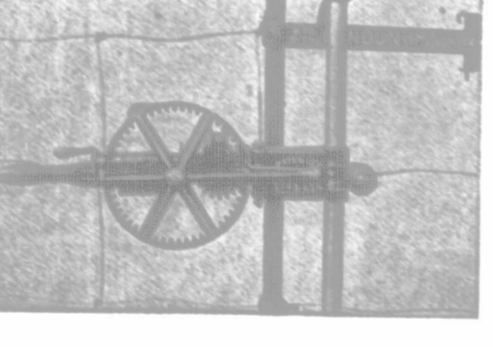
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IF NOT, DROP US A CARD FOR CATALOGUE AND PRICES.

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High Carbon Coiled Spring Wire

and Soft Galvanized Wire in all sizes. Steel Gates, Block Pulley Stretchers, Lever Stretchers, Post-hole Diggers, Staples, Reels, Pliers, etc., always in stock.

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CHOICE SEED POTATOES. Hovee.—Claimed to be the earliest of all, and one of the very heaviest yielders; in competitive trials it has outyielded all the early potatoes, and most of the late ones; the tubers grow very even in size, practically all being marketable, the quality perfect; on good soil, well cultivated, no other early potato compares with it. Early Ohio.—Very early, tubers almost round, flesh solid; cooks dry and mealy. Uncle Sam.—A medium late variety; is the handsomest potato grown; in cooking qualities is very superior; white, dry and floury; of luxuriant growth, being free from disease, blight, scab or rot; it out-yields all other varieties; in shape and size is wonderfully uniform. Sir Walter Raleigh.—A grand main crop; potatoes in most respects resembling the Rural New Yorker No. 2, but is more uniform, and yields practically no small tubers; it is one of the whitest-fleshed and finest grained potatoes, excelling even the Snowflake; the very best of Mr. CARMAN'S productions. One cent per pound. I. O. L. cars. Thomas Conway, Princeton, Ont. Order now, as this ad. will not appear again.

Trees! Trees! Trees!

We have a full line of Fruit and Ornamental Trees for spring, 1901, at lowest possible prices. Headquarters for packing dealers' orders. Farmers wishing to buy first-class stock absolutely first hand and without paying commission to agents, should write to us at once for a catalogue and price list. Don't wait until the last minute, as you will be disappointed. Place order early and secure the varieties you want. Correspondence solicited.

Winona Nursery Co., WINONA, ONT.

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are thoroughly reliable, and better cannot be found. We mail FREE our Illustrated Seed Catalogue for 1901, to all sending us their addresses. Our assortment is complete, and includes full lines of Plants, Flowering Bulbs, Shrubs, Tools, etc., besides all varieties of seeds for farm or garden, and Seed Grain.

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THE FROST & WOOD New Mower No. 8

4, 5 AND 6 FOOT CUT.

THOUSANDS IN USE AND GIVING SATISFACTION.

Our samples for 1901 are now ready. SEE THEM and get our prices before buying. IT WILL PAY YOU. Local Agents Everywhere.

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LARGE ASSORTMENT UP-TO-DATE STYLES. UNDOUBTED QUALITY OF MATERIAL AND WORKMANSHIP.



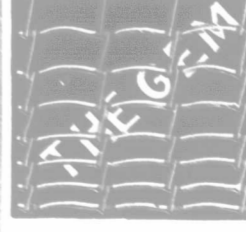
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LABORATORY OF INLAND REVENUE,
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EXTRA STANDARD GRANULATED SUGAR, indiscriminately taken from ten lots of about 150 barrels each. I have analyzed same and find them uniformly to contain:

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Centrifugal Farm

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AN ACTUAL NECESSITY FOR PROFITABLE DAIRYING WHEN MAKING BUTTER ON THE FARM OR WHEN SENDING CREAM TO THE CREAMERY OR CITY TRADE.

IT combines all important improvements and points of merit that are of real practical service to the everyday operator on the farm. Most simple in its construction. Anti-friction ball bearings; convenient and easy to operate by the children. Skims the cleanest; makes the sweetest cream; no numerous parts to give trouble and delay when washing every time it is used; only two pieces inside of the bowl. Strong, durable, made of the finest material, so as to give the most lasting service, and most beautiful in design and finish.

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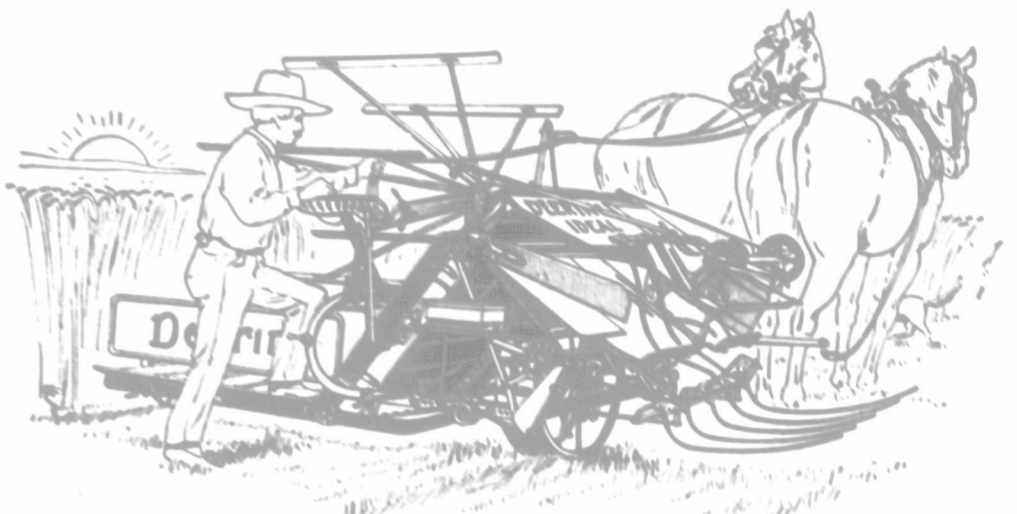
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No	Capacity	Churns from
0	6 gal.	1 to 2 gal. cream
1	10 "	1 1/2 to 2 1/2 "
2	15 "	2 to 3 "
3	20 "	3 to 4 "
4	25 "	4 to 5 "
5	30 "	5 to 6 "
6	40 "	6 to 8 "

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